

# CENTER FOR HEALTHCARE EDUCATION AND STUDIES

# **DISTANCE LEARNING**

By

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Volume I Distance Learning Analysis Study

**Contract Study** 

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#### **ABSTRACT**

#### **DISTANCE LEARNING**

Volume I Distance Learning Analysis Study Volume II Course Analysis Manual for Conversion to Distance Learning

The primary focus of this project is the determination of the feasibility and cost effectiveness of applying Distance Learning strategies to 22 selected PPSCP courses and development of a Distance Learning Analysis Procedures Manual.

# DISTANCE LEARNING ANALYSIS STUDY FOR PROFESSIONAL POSTGRADUATE SHORT COURSE PROGRAM



FINAL REPORT

# 1. Purpose of Report

The Department of Health Education and Training (DHET) commissioned a study to determine the feasibility of converting their Professional Postgraduate Short Course Program (PPSCP) from their current format to a distance learning format. This report presents the results of that distance learning study.

This report is a companion to another document prepared during the study - the "Course Analysis Manual for Conversion to Distance Learning". The analysis manual provides a step-by-step procedure for performing the analysis of an existing course to determine whether it might be converted to a distance learning format. For details on that process please refer to the analysis manual.

This report starts with an overview of the process we used to conduct the study. It follows with a summary of the key findings of the study. Subsequent sections provide some recommendations of things that might be considered as the results of this study are applied to the PPSCP; and, provide detailed analyses of individual courses that were audited during the conduct of this study.

This study was performed by a small group of consultants that included a Ph.D. in Education, a Ph. D. in Industrial Psychology, an alumnus of DHET, and data researchers who have developed and delivered instruction in a variety of subjects.

#### 2. Procedures Followed

To perform this distance learning analysis several steps were performed. The key steps in the process were:

- Review the list of courses that were to be audited as part of this study
- Develop survey instrument to collect the data necessary to make recommendations
- Baseline the technologies that might be applied to distance learning, and identified key attributes of the technologies that make them applicable or inappropriate for various course contents
- Determine what distance technologies are supported by DHET, the Army Medical Directorate (AMEDD), and the Training and Doctrine Command (TRADOC) that might be available for converted courses
- Use the survey data to refine the analysis process presented in the original study proposal
- Apply the refined survey instruments to the remainder of the courses to be audited
- Develop analysis tools for making a decision about convertibility of a course
- Apply the analysis tools to develop a recommendation
- Synthesize trends and overall findings into the final report.

# 2.1 Infrastructure Analysis - The Total Army Distance Learning Plan

To ensure that the recommendations made in this report were implementable, we gathered data on the technologies that the Army was investing in that might make distance learning possible. The Total Army Distance Learning Plan has resulted in significant investments in training facilities around the world that can support a variety of computer and televised delivery formats. This infrastructure of communications, computers, and television resources was used as the bounds of options for our recommendations.

The Student Survey instrument administered at each course we audited allowed us to determine three things:

- 1) Did students have reasonable access to Army Distance Learning Centers at their normal place of work?
- 2) Were computers present at the student's place of work, or did they own home computers?
- Were the computers that students have access to connected to the internet in some fashion?

In addition, we gathered information about the configuration of computers that students have access to in order to determine how many students had a "common" platform.

# 2.2 Analysis of distance learning technologies

Using information gathered from open sources we identified the existing and emerging technologies that could be used for the delivery of instruction from a distance. Those technologies were compared with the Army infrastructure that would exist over the next 2-3 years. Where there was a match, we included the technologies in the worksheets and tables that were used to develop our individual course recommendations. Where there was a technology that was not explicitly support in the Total Army Distance Learning Plan, we made mention of technologies that might be used to enhance a course in the future. We made a conscious decision not to recommend delivery media that would require the Army to make additional investments in infrastructure in order to make our recommendation implementable.

# 2.3 Development and refinement of the Data Collection Instrument

Assumptions we made in our study proposal about the content and organization of PPSCP courses proved to be inaccurate. PPSCP courses are not courses in a traditional sense. They generally are delivered in a symposium or conference format. The content for most courses is very different from one presentation to the next. The objectives of each course are very broad and general. Individual presentations or course modules are tied to the overall course objective, but a traditional hierarchy of learning objectives is not developed for each course. Instead, the courses tend to be informative and provide introductions to tools, techniques or issues that are currently facing the medical profession.

As a result of this difference between what we assumed about the courses, and the reality of their format and content, we had to completely revise our data gathering and analysis strategy early in the study. We took the revised instruments and reapplied them to the initial three courses to ensure that our final recommendations for individual courses were based upon the same data gathering techniques.

# 2.4 The data collection process

Course and infrastructure data were gathered primarily from two sources. Course information was gathered from the people who were responsible for organizing, staffing, and conducting a specific course. These people are generally discussed as "Course Administrators". They develop the syllabus for the course, identify and secure speakers, perform student registration functions, and ensure that proceedings from the course are available in some form to the students.

Infrastructure information was gathered from students attending the courses as well as Course Administrators. While survey instruments were provided to all students attending a course, the return rate varied greatly. In some cases we received most of the student surveys for a course. In other instances our return rate was only about half. We don't believe that the use of this incomplete data biases our recommendations or changes the list of technologies that are viable for PPSCP course delivery. There was enough

cohesiveness in the surveys were did receive to conclude that the student population was well represented by our survey data.

#### 2.5 Data analysis and reporting process

Details of the data analysis and reporting process are captured in the companion Course Analysis Manual for Conversion to Distance Learning. In general, we evaluated whether the educational content of a course would be made less effective if the course was converted to a distance learning media. In certain cases the primary goal of the course was to develop leadership skills or enhance interpersonal skills that would be very difficult (though not impossible) to accomplish via distance learning techniques. In other cases there was hands on lab work with access to materials or equipment not generally accessible outside of the course setting. The cost of converting these types of courses to distance learning are significantly more expensive to convert than to deliver in their current format.

When evaluating the material to be converted to distance learning, we factored our portions of the courses devoted to topics outside of the focus of the course. In many cases briefings that were of interest to the students were made a part of the conference (Tri-Care briefings, current job opportunities in a career field, evolution of individual Corps organizations). These modules of the course were not considered in our analysis our recommendations for an individual course.

# 3. Summary of Findings

This section provides general conclusions reached as a result of our study. These are offered as recommendations for the PPSCP program as a whole, not recommendations for a specific course.

#### 3.1 Course Recommendations

The table below identifies the courses audited as part of this study and provides the summary recommendation for each course. Details for of the recommendations for an individual course is contained at the end of this report in the section with the corresponding course number on the tab label. Overall, two courses were recommended for conversion to a video teletraining (VTT) format, twelve were recommended for conversion to a web based training (WBT) format, one was recommended for enhancement through a distance learning technology, and seven were recommended to remain in their current format.

**Table 3-1:** Summary Course Recommendations

	Table 5-1: Summary Course Recon	
Course #	Course Title	Recommendation
A0111	1 <sup>st</sup> Combined Operational Aeromedical	WBT+ Enhancement
	Problems Course	
A0116	Gary P. Wratten Military Surgical	No change
	Symposium	
A0126	14 <sup>th</sup> Annual ACP/Army Regional	WBT + Enhancement
	Meeting: Internal Medicine	
A0137	Army Force Health Protection Conference	WBT
A0156	Multidisciplinary Approach to Head and	No change
	Neck Trauma	
A0202	Endodontics for the General Dentist	VTT
A0208	Restorative Dentistry and Dental	VTT
	Materials	
A0306	1998 Military Veterinary Medical	WBT
	Seminar	
A0307	Military Veterinary Foreign Animal	No change
	Disease Diagnostics	5
A0416	Patient Administration Symposium	WBT
A0421	Health Facility Life Cycle Acquisition:	WBT
	Newcomer's Orientation Track	
A0423	AMEDD Worldwide Personnel	WBT
	Management Course	
A0437	Army Medical Evacuation Conference	Enhancement only
A0438	US Army Health Care Logistics	WBT
A0513	Phyllis J. Verhonick Research Course	WBT + Enhancement
A0515	Military Nursing Practical Course	WBT
A0524	Army Nurse Corps Company Grade	No change
	Leadership Course	
A0624	Army Medical Specialist Corps Executive	No change
	Management Course	
A0630	AMSC Combat Casualties and	No change
	Humanitarian Missions Course	
A0711	91 B Multisystem Trauma Short C	WBT
A0717	91 R/S/T Short Course (Vet)	WBT
A0803	Health Care Ethics	No change
	The state of the s	

# 3.2 Student Information Summary

A large amount of data was gathered about the demographics and geography of the students attending the PPSCP programs. This information gave insights into the overall costs of the current course, the access that students have to computers and other distance learning delivery platforms, and their goals for attending PPSCP courses The table below summarizes the findings of these surveys.

Data Category	Findings
Army Attendees	In most cases the courses were predominantly attended
	by active duty, regular Army staff. Normally there was a
	small percentage (5% or less) of attendees from other
	services or agencies. There were exceptions, such as the
	Health Care Logistics Course where nearly half of the
	attendees were from the Air Force. Only a small
	percentage of the courses were attended by members of
	the Army Reserve or National Guard.
Ranks	The highest attendance in these courses fell in the CAPT
	and MAJ ranks, representing about 40-50% of most
	courses. There was generally a 10% student population
	in each of the LTC and 2LT ranks. Civilians and other
	agency attendees were generally a small percentage of
	the attendees (less than 5%)
TDY Students	In general, over 85% of all attendees traveled on TDY
	status to attend these courses.
Primary Goal of	To Improve Professional Skills
Attendance (Decending	To Learn New Trends In My Professional Area
Order of Importance)	To Interact with Peers
	To have a better understanding of my organization
	To earn Continuing Educational Credits
	To develop professional contacts or networks
	To become familiar with a topic area
Computer literacy	On a 5 point scale, with 5 being "very literate" - 4.5
Regular Use of Computers	On a 5 point scale, with 5 being "every day" - 4.4

#### 4 Recommendations

There were several general findings that may be helpful in using this study to implement a distance learning program for PPSCP. Those findings are discussed below.

# 4.1 Refinement of Data Collection

The data gathering instruments used in our study, and provided in the companion analysis manual proved very useful. However, if we were to continue with additional audits we would probably eliminate the use of the student survey. While the data was very illuminating, it did not vary greatly from course to course. Once we were able to establish a baseline, the subsequent courses generally followed the trend closely.

# 4.2 Development of a Style Guide for VTT and WBT

In order to make the development of VTT and WBT courseware and productive and consistent as possible, effort should be placed on the development of style guides for both

technologies. The WBT style guide could be broadened to encompass standards for computer based training (CBT) as well. The use of these style guides will immensely improve the usefulness of the developed products, and minimize the cost of producing the courseware.

#### 4.3 Administrative Factors

Conscious effort will need to be made to "market" distance learning coureware. The availability of courses and the relevance of the course content needs to be easily accessible to the target student population, or they won't enroll. The registration and tracking of student progress will need to be facilitated by automated tools created to support the administration of a distance learning curriculum.

# 4.4 Providing Assistance

DHET will need to add staff who can help the content developers, answer questions, and work through problems. These may be Program Managers, but the skill set will be specifically oriented to authoring courseware using automated tools, not the subject matter or the course objectives. DHET or the program officers should be proactive keep track of the content development. It's like putting together an anthology, there is a need to keep track of all the parts as the courseware comes together for each course offering.

The following tabbed sections present the final recommendations for the individual courses audited through this study.

# 1st Combined Operational Aeromedical Problems Course Conversion Analysis

#### COMBINED OPERATIONAL AEROMEDICAL PROBLEMS COURSE

#### Course Purpose:

Provide information and training to all military personnel (primarily Army and Navy) dealing with aeromedical problems, to include flight surgeons, medics and technicians. This was the FIRST combined aeromedical problems course.

#### Course Content Stability

The course presentation and specific focus will change from year to year.

#### General Presentation Style: Distributive

Practically all of the presentations were lectures supported by graphics. A CD-ROM is to be provided to participants containing copies of all the presentations.

#### Instituctional Alois

Computer/PowerPoint, video, overheads. All presentations had more than adequate technical support.

#### Hands-on Activities:

One hands-on demonstration session was available throughout most of the conference.

#### Degree of Instructional Interaction:

The degree of interaction was generally low. Very little time was available to ask questions

#### Relevant Instructional Value:

Moderate to high

This course had in excess of 135 presentations. A number of specialties were represented. primarily flight surgeons. While some of the presentations were of general interest, others were of specific interest to only one segment of the audience. The relevance of the instruction to the participant dependent primarily on careful selection of presentations by the participant.

#### Recommendation

Convert portions of this course to Web based training, others to an electronic journal. Because the content of this course will change every year, the actual portion to be designed as distance learning versus that presented in another format such as web-based discussion groups, webbased professional libraries, electronic journals, etc., will have to be made during the analysis phase.

While an Aeromedical Problems Web Site could be done it would require careful indexing and content supervision possibly by a board of experts. This course could be made into a number of courses. Aspects of this course were actually a professional association conference. While such activities are necessary, not being instruction, they would not be suitable for distance learning. While the current cost of the course is relatively high, (\$492,000) 60% of the cost was covered by Navy funds. The Army's expenses for this course was \$192,000 which is significantly less than the \$281,475 that would be required to convert this course.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: 1st Combined Operat Aeromedical Problems Course	ional	Cor	ırs	e Num	ber: /	A0111			
1. Instructional goals of the cou (primarily Army and Navy) dealing with technicians.	<b>irse:</b> Provi n aeromedi	ide informa ical proble	atio ns,	n and to incl	trainin lude fl	g to all milita ight surgeon	ary perso s, medic	nnel s and	
2. Frequency of course offering p	er vear	# 1	Г					Yes	No
Current length of course in hour		# 91	7	Cor	wert:	to DL?		X	NO
Number of hours to be converted.		# 68	8		nance		7776	X	-
5. Number of registered students		# 455	0	. 1.11	ianice	:		^	
6. Number of potential students the		# 400	-						
could benefit from the course		# 1500							
codia perione from the codiac	L	π 1000	<u> </u>			*****			
9. If item 8 = Yes, Specify - I	Electronic	Journal						*****	
Technology	Level 1		2	Leve	el 3	Level 4			
WBT		X	_						
CBT					-				
VTT	Low	1		High					-
Other				1					
	.								
<b>Labor Hours Estimation Method</b>	: Short	X Long		Sync	hron	ous			
	C	Cost Data	1						
10. Total Cost Year One					\$ 28	1,475			
11. Total Cost Year Two	********					1,475			
12. Total Cost Year Three					\$ 28	31,475		,	
13. Total Cost Year Four					\$ 28	1,475			
!4. Total Cost Year Five					\$ 28	1,475			
15. Total costs year 1 to 5 (Sun	n of lines	10 throu	gh	14)	\$ 1,4	407,475			
16. Average cost, years 1 to 5 (div			5 b	y 5)	\$ 28	1,475			
17. Total potential students over a									
(multiply the number of potent	ial studen	nts (item 6	al	bove)					
by 5.)					# 75	00			
18. Average cost per potential s	tudent o	ver 5 yea	r						
period.	41	45			<b>.</b>	•			
(divide the value in line 15 by	tne value	in line 1/	)		\$ 18	88			
A delisi			4						
	nal Hard	ware/So	tw	are R			<b>T</b> 4 4	•	
Item:					Cos	t per unit	Total	Cost	
Proposed Enhancement(s)	Cost								
Electronic Journal	\$ 3,375	* ***							
	\$								
	\$								
Total Enhancement Costs	\$ 3,375								
The state of the s									

Instructional Formats and Physical Training Requirements
Course Name: Course Number: Course Name:

1st Combined Operational Aeromedical Problems

				_	
Α	0	1	1	1	

of Course sing this structional ormat	Format	Description	Physical Presence Required?		
95%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No		
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No		
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No		
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?		
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?		
4%	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.			
	Student Verbal Presentations	Students present verbal information to the larger group.			
	Student Procedural Presentations	Students present procedural information to the larger group.			
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?		
1%	Shop Activity	Hands-on technical tasks/procedures.			
	Lab Activity	Hands-on laboratory tasks/procedures.	?		

# **Course Information Summary Sheet**

Demonstration

Guided Discussion

Simulation (roll play, in-basket)

Exhibit

Course Name: 1st Combined Operational Aeromedical Problems Course

Course Number: A0111 Length of course - number of hours of instruction: 85 **Number of Registered Students: 455** Number of potential students that could benefit from this course: 1500 **Instructional goals of the course:** To provide information and training to all military personnel, to include flight surgeons, medics, and technicians, dealing with aeromedical problems, . Frequency of Course Offering: Once a year Continuing Education Credit Offered? Yes Number: 31 For each item listed, check ✓ row marked "Check" if observed or documented. Administrative Requirements Check Check Self pacing Detailed student records Group training Test Security On-demand availability Multiple test forms Open entry / open exit Training / Instruction Approach Lecture / Text Learning to Mastery X Live Presenters (quest speakers) Practice / drill Self study Structured Review

Problem solving exercises		
Testing Types		
Objective knowledge tests	Performance test hardware	
Essay	Oral testing	
Performance test –"paper"	No testing/Student course eval	Х
Performance test hardware		

Feedback on performance

Group activities/collaborative tasks

Remediation

Graphics 2D graphics still Х 3D animation 3D graphics still 2D interactive animation 2D animation 3D interactive animation Pre recorded video /films  $\overline{\mathsf{X}}$ Communications Audio Open Discussion Indirect discourse Question and answer Assigned reading

Note: Demonstrations were used less than 4% of the time and Audio (for non-voice sound reproduction) was used less than 2% of the time. These factors will not be considered for the remainder of the analysis.

4. Course Technology Match Table

Course (Name) 1st Combined Operational Aeromedic Course	Technologies					
Administrative Requirements	Check	CBT	WBT	VTT		
Self pacing						
Group training						-
On-demand availability						
Open entry / open exit						
Detailed student records				1000		
Test Security		5. 4				
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)					-	
Self study						
Demonstration						-
Exhibit			-		<del> </del>	-
Guided Discussion					-	-
Simulation – knowledge based					-	-
Simulation - hardware						-
Problem solving exercises						_
Learning to Mastery						
Practice / drill				- 10 to to		
Structured Review						-
Feedback on performance						
Remediation				***		
Group activities/collaborative tasks						
Testing Types			**************************************			
Objective knowledge tests			T			
Essay				. !		1
Performance test - "paper" exercise				1		
Performance test - hardware simulation	n				-	-
Performance test – hardware						
Oral testing		F 2002				
No testing/Student course evaluation	Х					
Graphics			1			
2D graphics still	Х		T		T	
3D graphics still						+
2D animation						+
3D animation						
2D interactive animation						
3D interactive animation				1000		
Pre recorded video /films	Х					
Communications	1		1	1	1	
Audio						
Indirect discourse						
Assigned reading					1	
Open Discussion						-
Question and answer opportunities		smer s			+	

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

Aeromedical Problems Course	1/	VED Das	ed Traini	
Asynchronous Course				
Interactivity Factors	Level 1	Level 2	Level 3	Level 4
Administrative Requirements				
Self pacing		>>>>>>	>>>>>>	>>>>>
Group training	-			-
On-demand availability		>>>>>>	>>>>>>	>>>>>
Open entry / open exit		>>>>>>	>>>>>>	>>>>>>
Detailed student records		>>>>>>	>>>>>>	>>>>>
Test Security		>>>>>>	>>>>>>	>>>>>>
Multiple test forms			>>>>>>	>>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>	>>>>>>	>>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>	>>>>>>	>>>>>
Demonstration			>>>>>>	>>>>>
Exhibit	Company Con		>>>>>	>>>>>>
Guided Discussion				
Simulation – knowledge based			>>>>>>	>>>>>
Simulation - hardware	4.3			
Problem solving exercises			>>>>>>	>>>>>>
Learning to Mastery		>>>>>	>>>>>>	>>>>>>
Practice / drill		>>>>>>	>>>>>>	>>>>>
Structured Review				>>>>>
Feedback on performance			>>>>>	>>>>>>
Remediation			>>>>>>	>>>>>
Group activities/collaborative tasks				
Testing Types				
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>>
Essay	F .			
Performance test - "paper" exercise			>>>>>>	>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>>
Graphics	^			
2D graphics still	Х	>>>>>>	>>>>>>	>>>>>>
3D graphics still		}	>>>>>>	>>>>>
2D animation			>>>>>>	>>>>>
3D animation				>>>>>>
2D interactive animation				>>>>>>
3D interactive animation				
Pre recorded video /films		X	>>>>>>	>>>>>>
Communications		^		
Audio		>>>>>>	>>>>>>	>>>>>>
Indirect discourse				
Assigned reading		******		
Open Discussion		>>>>>>	>>>>>>	>>>>>>
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Technology Interactivity Factors** 

<b>Course Name:</b> 1st Combined Operational Aeromedical Problems Course	Course N	lumber: A	J111		
Asynchronous Course	Cor	nputer B	ased Trai	ining	
Interactivity Factors	Level 1	Level 2	Level 3	Level 4	
Administrative Requirements					
Self pacing		>>>>>>	>>>>>>	>>>>>	
Group training			1		
On-demand availability		>>>>>>	>>>>>>	>>>>>	
Open entry / open exit		>>>>>>	>>>>>>	>>>>>	
Detailed student records					
Test Security					
Multiple test forms			>>>>>>	>>>>>	
Training / Instruction Approach					
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>	
Live Presenters (guest speakers)					
Self study		>>>>>>	>>>>>>	>>>>>	
Demonstration			>>>>>>	>>>>>	
Exhibit			>>>>>>	>>>>>	
Guided Discussion					
Simulation – knowledge based			>>>>>>	>>>>>	
Simulation - hardware					
Problem solving exercises		>>>>>>	>>>>>>	>>>>>>	
Learning to Mastery		>>>>>>	>>>>>>	>>>>>	
Practice / drill		>>>>>>	>>>>>>	>>>>>	
Structured Review			>>>>>>	>>>>>	
Feedback on performance		>>>>>>	>>>>>>	>>>>>	
Remediation			>>>>>>	>>>>>	
Group activities/collaborative tasks		*			
Testing Types					
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>	
Essay					
Performance test - "paper" exercise			>>>>>>	>>>>>	
Performance test – hardware simulation				>>>>>	
Performance test – hardware				100	
Oral testing					
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>>	
Graphics			1		
2D graphics still	Χ	>>>>>>	>>>>>>	>>>>>	
3D graphics still			>>>>>>	>>>>>	
2D animation			>>>>>>	>>>>>	
3D animation				>>>>>	
2D interactive animation				>>>>>	
3D interactive animation					
Pre recorded video /films		Х	>>>>>>	>>>>>	
Communications				1	
Audio		>>>>>>	>>>>>>	>>>>>	
Indirect discourse		1			
Assigned reading		>>>>>>	>>>>>>	>>>>>>	
Open Discussion					
Question and answer opportunities					

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

	Short Worksheet: Development Time								
Sh	ort Worksheet: Refined	Estimate o	f Developm	ent Hours Per H	our of Instruction				
Co	urse Name: 1st Combine	d Operational /							
					ed Training Level:	2			
		Analysis	Design	Development	Implementation	Sums			
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15				
2	Multiply line 1 by average * hours200								
3	Average hrs. per phase	80	40	50	30				
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.6 <sup>1</sup>	.5	.8	.3				
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	48	20	400	9				
	Total Labor Hours - sum across line 5			w <sup>2</sup> s		117			

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

<sup>&</sup>lt;sup>1</sup> Given that this course will require a substantial amount of reorganization to make it suitable for distance learning from an instructional perspective, additional time will be needed during the analysis phase. possible time savings are reduced to 40%.

**Short Worksheet: Development Time** 

Sh Co	ort Worksheet: Refined ourse Name: 1st Combined	d Operational	f Developm Aeromedical I	ent Hours Per He	our of Instruction	
				Media: CBT Mul	timedia <b>Le</b> v	/el: 2
		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15	sant 17 17 mm
2	Multiply line 1 by average * hours200					
3	Average hrs. per phase	80	40	50	30	
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.6 <sup>2</sup>	.5	.8	.3	
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	48	20	40	9	
	Total Labor Hours - sum across line 5					117

<sup>\*</sup> Average hours per hour of instruction
\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

<sup>&</sup>lt;sup>2</sup> Given that this course will require a substantial amount of reorganization to make it suitable for distance learning from an instructional perspective, additional time will be needed during the analysis phase. possible time savings are reduced to 40%.

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet: Web Based Training						
		Course Number: A					
1	Write the sum from Refined Estima estimated number of hrs. per hr. of	Hrs. 117					
2	Average hourly labor cost in dollars		\$ 50				
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 5850				
4	Actual number of classroom equiva converted or developed.		Hrs. 68				
5	Compression: If conversion to asynmultiply line 4 by .7 (seven tenths) a on line 5. If not a conversion to asynskip line 5	Hrs. 48					
6	Multiply line 3 by line 5 if a conversion asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous deliver on line 6.	\$ 280,800					
	Do not use lines 7 to 12 for any	costs that are to	be shared.				
7	Infrastructure Costs		\$				
8	Recurring Costs		\$				
9	Delivery Labor Costs		\$				
10	Travel Costs		\$				
11	Miscellaneous Costs (Electronic Jo	urnal)	\$ 675				
12	Add line 7 to 12	\$ 675					
13	Total Cost - Add lines 6 and 12.	\$ 281,475					
14	Number of potential students		# 1500				
15	Average Cost Per Student Divide I	ine 13 by line 14	\$ 188				
#1 5 2.1							

# **Course Cost Estimation Worksheet**

	Course Cost Estimate W	orksheet: CBT Mul	timedia
	rse Name: 1st Combined Operational nedical Problems Course	Course Number: AC	0111
1	Write the sum from Refined Estimated number of hrs. per hr. of		Hrs. 117
2	Average hourly labor cost in dollar	S	\$ 50
3	Multiple line 1 by line 2 and put the	e results on line 3.	\$ 5850
4	Actual number of classroom equiva- converted or developed.		Hrs. 68
5	Compression: If conversion to asy multiply line 4 by .7 (seven tenths) on line 5. If not a conversion to asy skip line 5	and put the results nchronous delivery	Hrs. 48
6	Multiply line 3 by line 5 if a conver asynchronous delivery <b>OR</b> line 3 b conversion to asynchronous delive on line 6.	y line 4 if not a	\$ 280,800
	Do not use lines 7 to 12 for an	y costs that are to	be shared.
7	Infrastructure Costs		\$
8	Recurring Costs		\$
9	Delivery Labor Costs		\$
10	Travel Costs		\$
11	Miscellaneous Costs (Electronic Jo	ournal)	\$ 675
12	Add line 7 to 12		\$ 675
13	Total Cost - Add lines 6 and 12.		\$ 281,475
14	Number of potential students		# 1500
15	Average Cost Per Student Divide	line 13 by line 14	\$ 188

Separate worksheets are needed for each technology. Follow the instructions given on the worksheet.

Cost Estimate for a Single Cou Course Name: 1st Combined Op Aeromedical Problems Course			ourse Numb	<b>per:</b> A0111			
Technology Selected	Level	1 Le	vel 2	Level 3	Level 4		
WBT			X				
CBT							
VTT	Low	<u> </u>		High			
Other							
Cost Factors		Val	ues		Sou	ırce	
1. Labor hours year 1		5616	400		000	1100	
2. Labor hours year 2		5616		Course T	echnology M	latch Table	
3. Labor hours year 3		5616		Course Technology Match Table Technology Interactivity Factors Table			
Labor hours year 4		5616			<i>5,</i>	.,	
5. Labor hours year 5		56`6					
6. Subtotal		28080					
7. Average labor cost		\$50					
B. Total labor Cost over 5 yr. pe	riod					, , , , , , , , , , , , , , , , , , , ,	
Multiply line 6 by line 7		\$ 1,404,000					
Additional Development/ Deliv	erv Co	st Bv	Year				
9. Cost year 1		\$ 675		Data to S	Support Cost	Analysis Worksheet	
10. Cost year 2		\$ 675					
11. Cost year 3		\$ 675					
12. Cost year 4		\$ 675					
13. Cost year 5		\$ 675					
14. Total Additional Costs .							
Sum lines 9 to 13 and enter line 14	on	\$ 3,375	5				
15. Total Course Cost. Add lines 8 and 14 and enter line 15	on	\$ 281,4	75				
<ol> <li>Average cost over 5 years.</li> <li>Divide line 15 by 5 and enter line 16.</li> </ol>	on	\$ 281,4	75				
17. Potential students year 1		1500		From Co.	urse Informat	tion Summary Sheet	
<ol> <li>Total potential students year</li> <li>(multiply line 17 by 5. and enter on line 18)</li> </ol>	I	7500					
<ol> <li>Average cost per student yr</li> <li>(divide line 15 by line 18 enter on line 19)</li> </ol>		\$ 188		Round up	to the neare	est whole dollar	

# Gary P. Wratten Surgical Symposium Conversion Analysis

# Gary P. Wratten Military Surgical Symposium

The course provides an opportunity for residents to present research efforts, update military surgeons on current surgical topics presented by national experts, and to encourage exchange between military surgeons.

#### Course Content Stability:

The majority of the course focuses on advances in the field and research findings. As such the content changes yearly

#### General Presentation Style: Lecture Lecture

The standard method of presentation was lecture. One presenter showed a Video of approximately ninety seconds length in support of his presentation.

#### Instructional Aids

Power Point visuals, 35mm slide or overheads supported all presentations.

#### Hands-on Activities

None

#### Degree of Instructional Interaction

Questions were encouraged and asked throughout the presentations. This was important as a learning technique to the resident presenters.

#### Relevant Instructional Value:

Unlike most PPSCP courses, the resident (student) presenters were the primary focus rather than the audience at large. This conference permitted new residents to practice presenting their research findings to an audience of other residents and staff physicians. While only staff physicians received CME credit (19) the primary beneficiaries of this course were the presenters. All attendees are pre-selected, consequently the number of participants is limited and would continue to be limited if converted to distance learning.

#### Recommendation

#### Do not convert.

While it is technically possible to convert this course to a distance learning using Video Teletraining, it is recommended that the course not be converted because little if any cost savings could be expected. If the decision were made to convert the course, the only media that could support it would be Video Teletraining. Since the presenters currently make up approximately 54% of the audience, a unique approach would be needed. The course could be divided into three segments separated by a period of time (for example one week) between sessions. This would allow student presenters to only spend one day presenting plus one day travel time. Excluding cost, the value of having the opportunity to present face-to-face has to be considered. Presenting before a television camera is a different environment and may not provide the type of experience that would be of most benefit to the resident surgeon presenters.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Gary P. Wratten Milita Symposium	ry Surgical	Coi	urs	e Num	ber:	A0116		
Instructional goals of the course the military to present their research expresented by nationally known experts especially in reference to readiness is:	fforts. b. to s, and c. to	o update r encourag	nilit je e	ary su	rgeon	s on current	surgical topics	s in
2. Frequency of course offering p	er vear	# 1					Yes	No
Current length of course in hou		# 20	7.	Cor	overt	to DL?	163	X
4. Number of hours to be converted		# -0-	8.		nance			X
5. Number of registered students		# 75				-		
6. Number of potential students th	at				<del></del>			
could benefit from the course		# 100						
9. If item 8 = Yes, Specify								
Technology	Level 1	Level	2	Leve	el 3	Level 4		
WBT								
СВТ								
VTT	Low			High	·	(		
Other								
Laborita - Fating Co. Made 1	01 (						-	
Labor Hours Estimation Method	: Snort _	_ Long_		Synch	rono	usX_		
1.0		ost Data						
10. Total Cost Year One		osi Dala			\$ 76	,850		
11. Total Cost Year Two					\$ 68			
12. Total Cost Year Three		***************************************				,850		
13. Total Cost Year Four						,850		
!4. Total Cost Year Five					\$ 68	<u>'</u>		
15. Total costs year 1 to 5 (Sun	of lines	10 throu	ah	14)		2,250		
			9	,	7 00	2,200		
16. Average cost, years 1 to 5 (div	ide value	in line 15	5 bv	v 5)	\$ 70	,450		
17. Total potential students over a				, - ,	, , , ,	1		
(multiply the number of potent			ab	oove)				
by 5.)				ŕ	# 50	00		
18. Average cost per potential s	tudent ov	ver 5 yea	r					
period.								
(divide the value in line 15 by	the value	in line 17	)		\$ 70	5		
A 1110			• 4					
	nal Hard	ware/Sot	twa	are R			T	
Item:					Cos	t per unit	Total Cost	
Proposed Enhancement(s)	Coot							
Proposed Enhancement(s)	Cost	* 41.41						
	\$							
	\$							
Total Enhancement Costs	\$							
Total Elitiancement Costs	\$							

Instructional Formats and Physical Training Requirements

Course Name:	Course Number:
Gary P. Wratten Military Surgical Symposium	A0116
% of Course	ALC: No. of the Control of the Contr

of Course sing this structional ormat	Format	Description	Physical Presence Required?
52%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
48%	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

**Course Information Summary Sheet** 

Course Name: Gary P. Wratten Military Surgical Symposium

Course Number: A0116

Length of course - number of hours of instruction: 20

Number of Registered Students: 75

Number of potential students that could benefit from this course: 100

**Instructional goals of the course:** a. To provide an opportunity for surgical residents and fellows in the military to present their research efforts. b. to update military surgeons on current surgical topics presented by nationally known experts, and c. to encourage exchange between military surgeons especially in reference to readiness issues and field surgery.

Frequency of Course Offering: once a year

**Continuing Education Credit Offered?** Only for attending staff physicians, not residents.

Number: 19

For each item listed, check of row marked "Check" if observed or documented

Administrative Requirements	Check		Chec
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	T
Live Presenters (guest speakers)		Practice / drill	1
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)		•	
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test – "paper"		No testing/Student course eval	
Performance test – hardware			
Graphics			
2D graphics still	Х	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	1
		Pre recorded video /films	X <sup>1</sup>
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer opportunities	Х
Assigned reading			

<sup>&</sup>lt;sup>1</sup> One non-student presenter used ninety seconds of video in his presentation. Video will not be used to determine technology of level of interactivity.

**Course Technology Match Table** 

Course			Te	chnolog	ies	
(Name) Gary P. Wratten Military Surgical Sym	Check	CBT	WBT	VTT	1	
Administrative Requirements  Self pacing	Crieck	CBI	VVDI	VII		4
Group training						-
On-demand availability						_
Open entry / open exit			-	- 85.75		-
Detailed student records		(Control of the Control of the Contr				-
Test Security			*****		1	-
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	- V		-			
Live Presenters (guest speakers)	X				ļ	
Self study	_					-
Demonstration						-
Exhibit						-
Guided Discussion					1	-
Simulation – knowledge based					ļ	-
Simulation - knowledge based Simulation - hardware						-
Problem solving exercises						_
Learning to Mastery			-			
Practice / drill		}		- 1 ac		-
Structured Review						
Feedback on performance			-	_ 3		-
Remediation				-		-
Group activities/collaborative tasks						-
Testing Types						
Objective knowledge tests	1	Γ			Τ.	T
Essay			7	,		
Performance test –"paper" exercise				A. Park		
Performance test – hardware simulation				- 1.335		<del> </del>
Performance test – hardware						
Oral testing		27				-
No testing/Student course evaluation						-
Graphics	.1					
2D graphics still	X		1	1	1	
3D graphics still	<del>                                     </del>				1	-
2D animation			-		1	-
3D animation	+					-
2D interactive animation	1		1			<del> </del>
3D interactive animation	<u> </u>					
Pre recorded video /films			1			<del> </del>
Communications		1				
Audio						T
Indirect discourse					-	
Assigned reading						1
Open Discussion						1
Question and answer opportunities	Х	1. 7.27		-	_	-

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

Course Name: Gary P. Wratten Military Surgical Symposium	Course Number: A0116					
Synchronous Course	Video Te	eletraining				
Interactivity Factors	Level 1 Low					
Administrative Requirements						
Self pacing						
Group training		>>>>>>				
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security		>>>>>>				
Multiple test forms		>>>>>>				
Training / Instruction Approach						
Lecture / Text	X	>>>>>				
Live Presenters (guest speakers)		>>>>>				
Self study						
Demonstration		>>>>>				
Exhibit		>>>>>				
Guided Discussion						
Simulation – knowledge based		>>>>>				
Simulation - hardware						
Problem solving exercises	And the second of the second o					
Learning to Mastery	1					
Practice / drill						
Structured Review	Price:					
Feedback on performance						
Remediation	-					
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – paper exercise  Performance test – hardware simulation						
Performance test – hardware						
Oral testing						
No testing/Student course evaluation		******				
Graphics		>>>>>				
2D graphics still		>>>>>				
3D graphics still	X	>>>>>>				
2D animation						
3D animation		>>>>>				
2D interactive animation		2222222				
3D interactive animation	go po a como post o com					
Pre recorded video /films		>>>>>>				
Communications	1					
Audio		>>>>>>				
Indirect discourse						
Assigned reading		>>>>>>				
Open Discussion	Personal Property					
Question and answer opportunities		Х				

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Calculation of Synchronous Training Costs** 

Course Name: Gary P. Wratten Military Surgical Symposium	Course Number	er: A0116	
	Costs:		
Edboi	Session 1	Session 2	Session 3
Development Cost = (320 hrs.) x average hourly	00001011 1	00001011 2	00331011 0
rate (\$50)	\$ 5,350	\$ 5,350	\$ 5,300
Course Managers Studio Cost = (Total studio time	Ψ 0,000	Ψ 0,000	Ψ 0,000
+ 1 hour for each day the course is offered) x			
number of times course is presented x average			
hourly rate (\$50)	\$ 400	\$ 450	\$ 300
Non-local Labor Cost = Number of non-local			
presenters ) x (length of the course in days +1) x			
number of times offered x average daily rate (\$400	\$ 1,600	\$ 2,400	\$ 2,400
Moderator	\$ 350	\$ 400	\$ 250
Local Labor Cost + Number of local presenters x			
average hourly rate (\$50) X 2 X number of times			
course is offered.	\$ 100	\$ 200	\$ 100
Total Labor Costs per session	\$ 7,800	\$ 8,800	\$ 8,350
Additional Cost (any co	osts not captured	above)	
Total Per Diem =			
(length of course in days plus one			
travel day x number of non-local presenters) x			
(local daily per diem rate) x number of time the course will be presented.	¢ 2.740	¢ = 440	¢0.700
Total Airfare = (Average Round Trip Airfare x	\$ 3,740	\$ 5,440	\$2,720
number of non-local presenters) x number of times			
the course will be presented.	\$ 11,000	\$ 16,000	\$ 8000
Total dollar amount paid as honorariums	\$ 1,667	\$ 1,667	\$ 1,666
(Other)	\$ 16,407	\$ 23,107	\$ 12,386
(Other)	Ψ 10,40 <i>1</i>	ψ 23, 107	\$ 12,300
Total Estimated Cost: Add Total Per Diem,	Airfare Labor (	Costs and Addition	onal Coete
Total Labor Costs	\$ 24,950	Jooto, una riaditi	Jilai 003t3.
Total Per Diem	\$ 11,900		
Total Airfare	\$ 35,000		
Total paid as honorariums	\$ 5,000		
(other)	\$ -0-		
TOTAL COURSE COST Year 1	\$ 76,850		
Cost Per Student = Total course costs divided by	Ψ / 0,000		
	\$ 769		
potential number of students	1 D / D9		

- 1. Student presenters not included in labor costs.
- Cost of a Moderator included.
- 3. Per diem includes costs of student and non student presenters.
- 4. Air fair estimated at \$1000 round trip.
- 5. Total honorariums of \$5000 divided between the three sessions.
- 6. While the possible number of attendees is 100 almost half may be student presenters. Since part of the "learning" includes answering questions the focus is on the presenter (many questioners to one learner) rather than the audience (one instructor to many learners) the need for a small class is not as significant as it would be in a typical class situation.

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Gary P. Wratten Mil Symposium	itary Su	irgical	Со	urse Numb	er: A0116	
Сутпрозіціті						
Technology Selected	Level 1	Level	2	Level 3	Level 4	
WBT						
CBT						
VTT	Low			High X		
Other						
Cost Factors		Values			Source	ce
1. Labor hours year 1		499				
Labor hours year 2		339		$\vdash$ Course T	echnology I	Match Table
3. Labor hours year 3		339				ity Factors Table
4. Labor hours year 4		339		-	<i>gy                                    </i>	ny radiora rabio
5. Labor hours year 5		339		_		
6. Subtotal		1855				
7. Average labor cost	9	\$ 50				
8. Total labor Cost over 5 yr. per	boi					
Multiply line 6 by line 7	100.	92,750				
Additional Development/ Delive	ry Cos	st By Yea	r			
9. Cost year 1		\$ 51,900		Data to S Workshee	upport Cost et	t Analysis
10. Cost year 2	3	51,900				
11. Cost year 3		51,900				
12. Cost year 4	3	51,900				Tropole
13. Cost year 5	3	\$ 51,900				
14. Total Additional Costs .						
Sum lines 9 to 13 and enter of line 14	n S	\$ 259,500				
15. Total Course Cost. Add lines 8 and 14 and enter of line 15	on S	\$ 352,250				
16. Average cost over 5 years. Divide line 15 by 5 and enter of line 16.	on S	\$ 70,450				
17. Potential students year 1		100		From Cou Sheet	ırse Informa	ation Summary
18. Total potential students year 1 5 (multiply line 17 by 5. and enter on line 18)		500				
<ul><li>19. Average cost per student yr.</li><li>5. (divide line 15 by line 18 enter on line 19)</li></ul>		\$ 705		Round up	to the near	rest whole dollar

Internal Medicine Conversion Analysis

#### INTERNAL MEDICINE COURSE

#### Course Purpose:

To present the latest research and developments in the field of internal medicine.

#### Course Content Stability:

Given that this course presents the latest developments in the field of internal medicine, the content material changes from year to year.

#### General Presentation Style:

LARTITCE .

This course could best be described as a "conference". That is, the information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners.

#### Instructional Aids:

Heavy reliance on 35 mm and PowerPoint slides outlining the lecture, or presenting graphs showing research results and pictures of symptoms associated with various conditions. In addition, many of the instructors provided handouts with supplemental information relevant to the topic they were addressing.

#### Hands-on Activities:

None

#### Degree of Instructional Interaction:

During the plenary sessions, students were instructed to hold their questions until the end. The instructors were then told to meet with students with questions at a particular location during breaks. There were opportunities for the students to ask questions during the breakout sessions. and the degree to which this interaction was engaged in varied from instructor to instructor, and from student to student. In general, these questions concerned points of clarification, and served to allow the learner to better understand how to apply the information in a real world situation. The question/answer periods were generally limited to an exchange between an individual student and the instructor, such that the interaction did not expand into a general discussion period involving several students.

# Relevant Instructional Value: Moderate

This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be wisely accomplished without further researching the topic independently. The main thing to be gained from attending this course (according to the POC) was an opportunity to network, and to make contacts among peers.

#### Recommendation:

# Convert the course to Web Based Training supplemented by an Electronic Journal

The internal Medicine course was delivered in a standard large conference format, a plenary session in the morning and breakout sessions in the afternoon where the students could attend most of the sessions being conducted as they wished. Some "workshop" sessions were by invention only, which focused on such topics as American College of Physicians (ACP) chapter business, and Army internal medicine residency curriculum development. Other sessions identified as workshops were actually panel discussions.

Considering the plenary and breakout sessions, the conference provided a total of 72+ hours of presentations. Some 116 fifteen minute presentations were included for a total of 29 hours of fifteen minute presentations. Of the 12 hours of time devoted to the plenary sessions some 5 hours were devoted to ACP business, 10 fifteen minute presentations of papers submitted for competition, and various awards and recognition of service.

A maximum of 21 Continuing Medical Education (CME) credit could be earned at this conference.

Procedural Recommendations: This course can be converted to Web Based Training at a very low cost given the following:

- 1. All the fifteen minute presentations as well as some six (6) hours of longer presentation which do not specifically address the purpose of the course should be delivered through an electronic journal.
- 2. Closed workshops (working groups), which are not intended for student participation, cannot be converted to distance learning and another venue should be found for these activities.

Excluding the above items some 30 hours of content remains which includes the common core (plenary sessions) and the breakouts (specialty sessions) Because of the 10 specialty sessions (which can change in number from year to year), the use of VTT is not recommended. The course would need to be offered multiple times, or the specialty sessions would need to be offered sequentially which would create a significant scheduling problem in identifying which sites are needed and when. The large number of potential participants (800) who are distributed worldwide, would add to the scheduling problem. While the per student cost of VTT is less than Web Based Training (\$40 vs. \$68) if presented only once, the administrative and scheduling problems would very likely result in a much lower attendance and completion rate.

The use of a Web Based Training approach allows for self-registration, and open entry/open exit use. This would significantly reduce the administrative burden as well as being more adaptable to the work environment. Also the courseware could be easily converted to CBT Multimedia, at minimal cost, for any participants who do not have Internet access.

The 30 instructional hours recommended for conversion can be assigned by the Program Officer to a common core or specialty option as appropriate.

Conversion of each fifteen-minute presentation and other papers to an electronic journal should take approximately 45 minutes, to include scanning, formatting, and indexing. Total labor time for this task should be approximately 92 hours.

The conversion of this course should result in a yearly 70% saving over current costs. This saving is approximately equal to the current student transportation cost, which is some 75% of current expenditures.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: 14th Annual ACP/Arr Meeting: Internal Medicine						A0126			
1 Instructional goals of the sec	T		1 (			1 1 .			
Instructional goals of the could internal medicine.	irse: 10	present the	lat	est res	searcr	n and develo	pments	in the fi	eld
of internal medicine.									
2. Frequency of course offering p	er vear	# 1		***				Yes	No
Current length of course in hour		# 72	7.	Cor	Convert to DL?			X	IVO
Number of hours to be converted.		# 30	8.		nance			X	
5. Number of registered students	-	# 300	<u> </u>		Idiloc	• :			
6. Number of potential students th	at	11 000							
could benefit from the course		# 800							
			L					1	
9. If item 8 = Yes, Specify: Pro	oduction	of an Ele	ecti	ronic	Jour	nal			
Technology	Level 1			Leve		Level 4			
WBT	X								
CBT									
VTT	Low			High					
Other									
					VIII 138 P. C. L.				
<b>Labor Hours Estimation Method</b>	: Short _	X_ Long		Sync	hron	ous	7,000		
		Cost Data	l						
10. Total Cost Year One						3,950			
11. Total Cost Year Two						3,950			
12. Total Cost Year Three						3,950			
13. Total Cost Year Four						3,950			
!4. Total Cost Year Five	f !:	40.41		4.4)		3,950			
15. Total costs year 1 to 5 (Sun	of lines	10 throu	gh	14)	\$ 26	9,750			
16 Average cost veers 1 to E (di	بنام برمايير	s in line 45	<u></u>	. E \	ф F0	050			
<ul><li>16. Average cost, years 1 to 5 (div</li><li>17. Total potential students over a</li></ul>	five year	n line 1	) D)	(5)	\$ 53	3,950			
(multiply the number of potent			ah	2010)					
by 5.)	iai stuuci	its (item c	aL	Juve)	# 40	000			
18. Average cost per potential s	tudent o	ver 5 vea	r		# 40				
period.	· · · · · · · · · · · · · · · · · · ·	voi o you	•						
(divide the value in line 15 by	the value	in line 17	)		\$ 68	}			
					,				
Additio	nal Hard	lware/Sof	twa	are R	equir	ed			
Item:					Cos	t per unit	Total	Cost	
							7.7.	***********	
Proposed Enhancement(s)	Cost				L				
Electronic Journal	\$ 4,600	per year							
	\$	1 7		-					
	\$								****
Total Enhancement Costs	\$ 23,000 over five years								
			, -						
and the second s								:	

**Instructional Formats and Physical Training Requirements** 

Course Name:

14th Annual ACP/Army Regional Meeting: Internal Medicine

Course Number:

A0126

of Course sing this structional ormat	Format	Description	Physical Presence Required?
52%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
5%	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
3%	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
40%	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

# Course Information Summary Sheet

Course Name: 14th Annual ACP/Arm	ny Regional	Meeting: Internal Medicine	
Course Number: A0126			
Length of course - number of hours	of instruct	tion: 72	
Number of Registered Students: 300			
Number of potential students that co		t from this course, 900	
<b>Instructional goals of the course:</b> To of internal medicine.	present th	e latest research and developments in	the field
Frequency of Course Offering: Once	e a year		
<b>Continuing Education Credit Offered</b>	? ves	Number: 21	
For each item listed, check ✓ row	v marked	"Check" if observed or documen	ted.
Administrative Requirements	Check		Check
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	Х	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			,
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test – "paper"  Performance test – hardware		No testing/Student course	X
Performance test – nardware			
Graphics			
2D graphics still	Х	3D animation	1
3D graphics still		2D interactive animation	
2D animation	1	3D interactive animation	
		Pre recorded video /films	
Communications			_l
Audio		Open Discussion	
Indirect discourse		Question and answer	<del> </del>
Assigned reading			-
-			-

**Course Technology Match Table** 

(Name) 14th Annual ACP/Army Regiona Internal Medicine	l Meeting:		Te	echnolog	ies	
Administrative Requirements	Check	CBT	WBT	VTT	1	
Self pacing	CHECK	CDI	VVDI	VII	ļ	_
Group training					_	
On-demand availability						
Open entry / open exit  Detailed student records				doesare		
		, garante agrico				
Test Security					ļ	
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	X					
Live Presenters (guest speakers)			Burn Burn			
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill				2		
Structured Review				a a		
Feedback on performance				1		
Remediation				197		
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test -"paper" exercise						
Performance test – hardware simulation	1					
Performance test – hardware				A.C.		
Oral testing		egr				
No testing/Student course evaluation	X					
Graphics					1	
2D graphics still	Х	T			T	
3D graphics still					<del>                                     </del>	-
2D animation						
3D animation			1			_
2D interactive animation		<del></del>	-			
3D interactive animation				13.50.40		_
Pre recorded video /films						
Communications		1				
Audio					1	
Indirect discourse						
Assigned reading						
Open Discussion					-	
Question and answer opportunities		Women was a second		-		

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Asynchronous Course	WEB Based Training						
Interactivity Factors	Level 1	Level 2	Level 3	Level 4			
Administrative Requirements							
Self pacing		>>>>>>	>>>>>>	>>>>>>			
Group training							
On-demand availability		>>>>>>	>>>>>>	>>>>>			
Open entry / open exit		>>>>>>	>>>>>>	>>>>>			
Detailed student records		>>>>>>	>>>>>>	>>>>>			
Test Security		>>>>>>	>>>>>>	>>>>>			
Multiple test forms			>>>>>>	>>>>>			
Training / Instruction Approach							
Lecture / Text	Х	>>>>>	>>>>>	>>>>>			
Live Presenters (guest speakers)	^						
Self study		>>>>>	******				
Demonstration Demonstration		,,,,,,,,	>>>>>>	>>>>>			
Exhibit			>>>>>>	>>>>>			
			>>>>>>	>>>>>			
Guided Discussion							
Simulation – knowledge based			>>>>>>	>>>>>			
Simulation - hardware		100					
Problem solving exercises			>>>>>>	>>>>>			
Learning to Mastery		>>>>>>	>>>>>>	>>>>>			
Practice / drill		>>>>>>	>>>>>>	>>>>>			
Structured Review				>>>>>			
Feedback on performance		(	>>>>>>	>>>>>			
Remediation			>>>>>>	>>>>>			
Group activities/collaborative tasks	T.	1.					
Testing Types				Y			
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>			
Essay							
Performance test – "paper" exercise			>>>>>>	>>>>>			
Performance test – hardware simulation							
Performance test – hardware							
Oral testing							
No testing/Student course evaluation	X	>>>>>>	>>>>>>	>>>>>			
Graphics							
2D graphics still	Х	>>>>>	>>>>>	>>>>>			
3D graphics still			>>>>>>	>>>>>			
2D animation			>>>>>>	>>>>>			
3D animation				>>>>>			
2D interactive animation				>>>>>			
3D interactive animation							
Pre recorded video /films			>>>>>	>>>>>			
Communications			·	Acres			
Audio		>>>>>	>>>>>>	>>>>>			
Indirect discourse							
Assigned reading		>>>>>>	>>>>>>	>>>>>			
Open Discussion							
Question and answer opportunities							

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Asynchronous Course	Computer Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements			:			
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training						
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records						
Test Security						
Multiple test forms			>>>>>>	>>>>>>		
raining / Instruction Approach						
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)						
Self study		>>>>>	>>>>>>	>>>>>		
Demonstration			>>>>>>	>>>>>		
Exhibit			>>>>>>	>>>>>		
Guided Discussion						
Simulation – knowledge based		1	>>>>>>	>>>>>>		
Simulation - hardware			************	*******		
Problem solving exercises		>>>>>>	>>>>>>	>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>>	>>>>>>	>>>>>		
Structured Review			>>>>>>	>>>>>		
Feedback on performance		>>>>>>	>>>>>>	>>>>>		
Remediation			>>>>>>	>>>>>		
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests		>>>>>	>>>>>	>>>>>		
Essay						
Performance test –"paper" exercise			>>>>>>	>>>>>		
Performance test – hardware simulation				>>>>>		
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>>		
Graphics						
2D graphics still	X	>>>>>	>>>>>>	>>>>>		
3D graphics still			>>>>>>	>>>>>		
2D animation			>>>>>>	>>>>>		
3D animation				>>>>>		
2D interactive animation	P			>>>>>		
3D interactive animation	!					
Pre recorded video /films	1 1		>>>>>>	>>>>>		
Communications				1		
Audio		>>>>>>	>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>>	>>>>>>	>>>>>		
Open Discussion						
Question and answer opportunities	1 (050-5)					

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support tha factor.

Synchronous Course	Video Te	eletraining
Interactivity Factors	Level 1 Low	Level 2 High
Administrative Requirements		
Self pacing		
Group training		>>>>>>
On-demand availability		
Open entry / open exit		
Detailed student records		
Test Security		>>>>>>
Multiple test forms		>>>>>>
Training / Instruction Approach		.,
Lecture / Text	X	>>>>>
Live Presenters (guest speakers)		>>>>>
Self study		
Demonstration		>>>>>
Exhibit		>>>>>>
Guided Discussion		
Simulation – knowledge based		>>>>>>
Simulation - hardware		********
Problem solving exercises	11 to semental and the second	
Learning to Mastery	-	
Practice / drill	-	
Structured Review	- In the second	
Feedback on performance	- Mi	
Remediation	_	
Group activities/collaborative tasks	6.	
Testing Types		
Objective knowledge tests		
Essay Essay	The succession of the state of	
Performance test –"paper" exercise	- 3	
Performance test – hardware simulation		
Performance test – hardware		
Oral testing		
No testing/Student course evaluation	V	>>>>>>
Graphics	X	
2D graphics still	Х	>>>>>
3D graphics still		>>>>>>
2D animation		>>>>>>
3D animation		>>>>>
2D interactive animation		
3D interactive animation	, A.A. A. A. (22)	
Pre recorded video /films		>>>>>
Communications		
Audio		>>>>>>
Indirect discourse		
Assigned reading		>>>>>>
Open Discussion		
Question and answer opportunities	A STATE OF THE PROPERTY OF THE	

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Short Worksheet: Development Time** 

	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction					
- 00	Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine  Media: Web Based Training Level: 1					
		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15	
2	Multiply line 1 by average * hours100	2 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	A PERSONAL PROPERTY OF THE PRO	
3	Average hrs. per phase	40	20	25	15	Professional Control of Control o
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3	
5	Adjusted hrs. per phase. Multiply line 4 3 by line 4.	12	10	20	4.5	
	Total Labor Hours - sum across line 5					47

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

**Short Worksheet: Development Time** 

Sh	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine					
Co	ourse Name: 14th Annua	II ACP/Army		eting: Internal Me dia: Computer Ba		vel: 1
		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15	
2	Multiply line 1 by average * hours100					
3	Average hrs. per phase	40	20	25	15	
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3	
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	12	10	20	4.5	lanatatututtilitioni
	Total Labor Hours - sum across line 5					47

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

	se Cost Estimation Worksheet Course Cost Estimate Worksheet: W	eh Based Training			
Cou		umber: A0126			
	onal Meeting: Internal Medicine				
1	Write the sum from Refined Estimate Worksh	'			
	estimated number of hrs. per hr. of instruction				
2	Average hourly labor cost in dollars	\$ 50			
3	Multiple line 1 by line 2 and put the results on	line 3. \$ 2350			
4	Actual number of classroom equivalent hours converted or developed.	Hrs. 30			
5	Compression: If conversion to asynchronous delivery				
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.				
	Do not use lines 7 to 12 for any costs th	at are to be shared.			
7	Infrastructure Costs	\$			
8	Recurring Costs \$				
9	Delivery Labor Costs	\$			
10	Travel Costs	\$			
11	Miscellaneous Costs	\$			
12	Add line 7 to 12	\$			
13	Total Cost - Add lines 6 and 12.	\$ 49,350			
14	Number of potential students	# 800			
15	Average Cost Per Student Divide line 13 by line 14 \$ 62				

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksh	eet: Computer Bas	sed Training			
		Course Number: A				
1	Write the sum from Refined Estimate estimated number of hrs. per hr. of		Hrs 47			
2	Average hourly labor cost in dollars		\$ 50			
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 2350			
4	Actual number of classroom equiva converted or developed.	lent hours to be	Hrs. 30			
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5					
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.					
	Do not use lines 7 to 12 for any costs that are to be shared.					
7	Infrastructure Costs		\$			
8	Recurring Costs		\$			
9	Delivery Labor Costs		\$			
10	Travel Costs		\$			
11	Miscellaneous Costs		\$			
12	Add line 7 to 12		\$			
13	Total Cost - Add lines 6 and 12.		\$ 49,350			
14	Number of potential students		# 800			
15	Average Cost Per Student Divide line 13 by line 14 \$ 62					

Calculation of Synchronous Training Costs

<b>Course Name:</b> 14th Annual ACP/Army Regional Meeting: Internal Medicine	Course Number: A0126
weeting. Internal wedicine	
Labor	Costs:
Development Cost = (320 hrs.) x average hourly	
rate (\$50)	\$ 16,000
Course Managers Studio Cost = (Total studio time	
+ 1 hour for each day the course is offered) x	
number of times course is presented x average	
hourly rate (\$50)	\$ 1650
Non-local Labor Cost = Number of non-local	
presenters) x (length of the course in days +1) x	
number of times offered x average daily rate (\$400	\$ 4000
Local Labor Cost + Number of local presenters x	
average hourly rate (\$50) X 2 X number of times	
course is offered.	\$2800
Total Labor Costs	\$ 24,450
Additional Cost (one of	and not continued the continued to
Additional Cost (any co	osts not captured above)
(length of course in days plus one	
travel day x number of non-local presenters) x	
(local daily per diem rate) x number of time the	
course will be presented.	\$ 1700
Total Airfare = (Average Round Trip Air Fair x	<b>4</b> 17.00
number of non-local presenters) x number of times	
the course will be presented.	\$ 1000
Total dollar amount paid as honorariums	\$ -not provided-
(Other) electronic journal	\$4,600
	7 . 1 - 2 -
Total Estimated Cost: Add Total Per Diem,	Air Fair, Labor Costs, and Additional Costs.
Total Labor Costs	\$ 24,450
Total Per Diem	\$ 1,700
Total Airfare	\$ 1,000
Total paid as honorariums	\$ -not provided-
(other) electronic journal	\$ 4,600
TOTAL COURSE COST Year 1	\$ 31,750
Cost Per Student = Total course costs divided by	
potential number of students	\$ 40

### Note:

- The course, if offered sequentially, would require 3.75 days assuming 8 hours attendance per day.
- While the course lists four days, the first day is simply registration which can be done on the morning of the second day.
- Number of presenters determined by assuming one hour per presentation.
- Number of non-local presenters was determined as an equivalent percentage of the current number of non-local presenters excluding fifteen minute presentations and other presentations not recommended for conversion.
- Information on instructor travel not provided in Administrators Survey. No coast to coast travel noted. Assume \$500 round trip.

Cost Estimate for a Single Course Over a Five Year Period

Course Name: 14th Annual ACP/Army Regional Meeting: Internal Medicine				ourse Numb	er: A0126		
Technology Selected	_evel 1	Level	2	Level 3	Level 4		
WBT	X						
CBT		-					
	_OW			High			
Other				riigii			
Cost Factors		Values			So	urce	
1. Labor hours year 1		987					
2. Labor hours year 2		987		Course Technology Match Table			
3. Labor hours year 3		987		Technolo	gy Interactiv	∕ity Factors Table	
Labor hours year 4		987					
5. Labor hours year 5		987					
6. Subtotal		934					
7. Average labor cost		\$ 50 \$ 246,750					
<ol><li>Total labor Cost over 5 yr. peri</li></ol>	iod. 🔓						
Multiply line 6 by line 7							
Additional Development/ Delive			r				
9. Cost year 1		4,600		Data to Support Cost Analysis Worksheet			
10. Cost year 2		4,600					
11. Cost year 3		4,600		Cost for p	roduction o	f Electronic Journal	
12. Cost year 4		4,600					
13. Cost year 5	\$	4,600					
14. Total Additional Costs . Sum lines 9 to 13 and enter or line 14	\$ \$	23,00					
15. Total Course Cost. Add lines 8 and 14 and enter of line 15	on \$	269,750					
<ol> <li>Average cost over 5 years.</li> <li>Divide line 15 by 5 and enter of line 16.</li> </ol>	n \$	53,950					
17. Potential students year 1	8	00		From Cou	ırse Informa	ation Summary Sheet	
<ol> <li>Total potential students year 1</li> <li>(multiply line 17 by 5. and enter on line 18)</li> </ol>	40	000				,	
<ul><li>19. Average cost per student yr.</li><li>5. (divide line 15 by line 18 enter on line 19)</li></ul>		\$ 68		Round up	to the near	rest whole dollar	

# Multidisciplinary Approach to Head and Neck Trauma Conversion Analysis

# MULTIDISCIPLINARY APPROACH TO HEAD AND NECK TRAUMA

# Course Purpose:

Gather specialists concerned with trauma to the head and neck. Discuss recent techniques, research and other critical issues.

## **Course Content Stability:**

Low

Topics will change yearly. Content and topics will change depending on current research and developments.

### **General Presentation Style:**

Distributive

The information was delivered using a lecture format as the primary vehicle in which one (1) instructor presented information to many learners.

### Instructional Aids:

Heavy reliance on 35 mm slides. In addition, most presenters provided handouts with supplemental information relevant to the topic they were addressing.

## Hands-on Activities:

None

### **Degree of Instructional Interaction:**

The presentations moved quickly. There was no opportunity for the students to ask questions during the presentations. At the end of each half-day, the students could ask questions of available speakers in a question and answer session. The question/answer periods were limited by the availability of the presenters at the question period.

### Relevant Instructional Value:

High

Information presented was relevant to both peacetime and wartime activities of the military participants. The course was designed for and presented to physicians involved in the care of patients who have sustained trauma to the head and neck, primarily otolaryngologists/ear, nose and throat physicians. Content was not military specific.

### Recommendation:

Based on information received from course personnel, do not convert to Distance Learning. See Note below.

Technically, this course is a good candidate for conversion to Web based or computer based training. However, if the cost is to be amortized only among the small number of military participants, it would not be cost-effective. An estimated 45 civilian attendees paid a registration fee of \$150 and military attendees paid a \$75 registration fee. Fourteen vendors (pharmaceutical companies, book publishers, etc.) provided "monetary effort" of approximately \$500 each. Vendor funds were used for daily breakfast buffets during which a speaker presented and breaktime snacks. Considering civilian registration and vendor contributions, a total of approximately \$13,750 in funds above and beyond those provided through the PPSCP were made available to conduct the course. (Military registration was not considered in this figure, because it was reimbursed to the participants when they filed their travel youchers.) Because vendor contribution might be limited when converting the course, and potential for collection of civilian registration fees would be eliminated, it appears that the relative costs of conversion would increase. However, if it were not held in residence, there would be no requirement for snacks and breakfast. Web-based or computer-based training is estimated to be \$21,385 per year, which is approximately \$6,000 per year more than the estimated current cost of \$16,000 (not counting food and snacks). VTT development would not be possible at Madigan Army Medical Center since it is not a Distance Learning Center and could not originate VTT training. Costs for conversion to Web-based training at Level 1 are provided on the following sheets.

NOTE: The content and structure of this course is ideal for conversion to Web-based training. The recommendation not to convert was made based on the cost analysis data provided by the Course Project Officer that results in a per-student conversion figure that is not cost-effective. The potential target audience identified by the Project Officer was something under 100 (apparently reflecting only the size of the military ENT physician specialty group). However, the material presented (primarily new techniques and procedures for dealing with acute and long-term treatment of injuries to the head and neck) is applicable to a much larger audience. This includes military and civilian physicians practicing worldwide in Trauma/ Emergency Department settings, Oral and Plastic Surgeons, Dentists, and other professional and paraprofessionals dealing with this patient population. In fact, paramedics from the Madigan Emergency Department were invited to attend this course. If this wider audience is considered, the perstudent cost drops dramatically and would most certainly support conversion to distance learning.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Multidisciplinary Appro	ach to He	ead	Cou	rse	Num	ber:	A0156	-		
and Neck Trauma										
1. Instructional goals of the cou	root Catt	20-	onocieli-	45	20225		rith trasser 4	o the b-	-d	
neck. Discuss recent techniques, rese	erch and	oth	specialis	ils (	COUCE	nea v	viin irauma i	o the ne	ao ano	
Tieck. Discuss recent techniques, rese	al Cil allu	Oti	iei ciilica	113	sucs.					
2. Frequency of course offering po	er vear:	#	1						Yes	No
3. Current length of course in hour			13	7.	Con	vert t	o DL?	*****		X
4. Number of hours to be converte		#	0	8.	Enh	ance	?			X
5. Number of registered students		#	88							
6. Number of potential students th	at									
could benefit from the course		#	125							
9. If item 8 = Yes, Specify:										
Technology	Level 1	Ц	Level 2	2	Leve	1 3	Level 4			
WBT				_						
CBT					<del></del>					
VTT	Low	_		_	High					
Other	41 11.		6384 1	_1						
Cost Estimate fo								1		
Labor Hours Estimation Method:	Snort_	<u>.X_</u>	_ Long_		Sync	nron	ous			
		Ca	st Data							
10. Total Cost Year One		CO	St Data		I	\$ 21	205	<del></del>	-	
11. Total Cost Year Two	-					\$ 21				
12. Total Cost Year Three							,385			
13. Total Cost Year Four							,385			
! 4. Total Cost Year Five							,385			
15. Total costs year 1 to 5 (Sum	of lines	5 1	0 throug	ah	14)		6,925			
70. 70			<u> </u>	3	• • •	7.0	,,,,,			
16. Average cost, years 1 to 5 (div	ide value	e ir	n line 15	by	(5)	\$ 21	,385			*
17. Total potential students over a						••••				
(multiply the number of potent	ial stude	nts	(item 6	ab	ove)					
by 5.)						# 62	5	#310	(military	<b>'</b> )
18. Average cost per potential s	tudent c	ve	er 5-year	r						
period.						<b>.</b>	4.00			
(divide the value in line 15 by t	the value	in	line 17)	)		\$ 17	1.08	\$344.	91 (mili	tary)
A .1.11.4:		J	10 - 51	<u> </u>						4
	nal Hard	JW.	are/Son	twa	are Ke			Total	C+	
Item:						Cos	t per unit	Total	Cost	
	0 1									
Proposed Enhancement(s)	Cost								-	
	\$						<del></del>			
	\$									
Total Enhancement Costs	\$									
Total Enhancement Costs	\$									
			enterior and professional and analysis of	75 1/50	and the same of the	and the state of the balls	I feet of advise a participation of the order of the company of th			
						4 4			10.7	w/ - 34

Instructional Formats and Physical Training Requirements

Course Name: Multidisciplinary Approach to Head and Neck Trauma

Course Number: A0156

% of Course Using this Instructional Format	Format	Description	Physical Presence Required?
100%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	7
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	7
***************************************	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

# **Course Information Summary Sheet**

Course Name: Multidisciplinary Approach	to Head a	and Neck Trauma	
Course Number: A0156			
Length of course - number of hours of in	nstructio	n: 13	
Number of Registered Students: 88 (app	roximate	y 50% military)	
Number of potential students that could	benefit f	rom this course: 125 (assume 62 mi	litary)
Instructional goals of the course: Gather neck. Discuss recent techniques, research	specialis	ts concerned with trauma to the head	
Frequency of Course Offering: Once a ye	ear		
Continuing Education Credit Offered?	/es	Number: 13	
For each item listed, check ✓ row m		Check" if observed or document	
Administrative Requirements C	heck =		Check
Self pacing		Detailed student records	
Group training		Test Security	ļ
On-demand availability		Multiple test forms	
Open entry / open exit			}
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval.	X
Performance test – hardware		3	
Graphics			Waliotaki
2D graphics still	Х	3D animation	T. C. ST.
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	<b>†</b>
ED GITTIGUOTI	<del></del>	Pre recorded video /films	X
Communications		To record the continue	
Audio		Open Discussion	
Indirect discourse	-	Question and answer	-
Assigned reading		Question and answer	1
Assigned reading			-
			<u> </u>

Note: Video was used during one thirty minute presentation (>4%) and will not be used to determine technology or level of interactivity.

**Course Technology Match Table** 

Course Multidisciplinary Approach to Head Neck Trauma	and	Technologies					
Administrative Requirements	Check	CBT	WBT -	VTT			
Self pacing		5 . 1		The fact of the section	to substitution of Substitution		
Group training							
On-demand availability						-	
Open entry / open exit						-	
Detailed student records				3		<del> </del>	
Test Security		description of				-	
Multiple test forms							
Training / Instruction Approach	4 4.250	i Kanara		WHIT		10.00	
Lecture / Text	X			1.扩充要用。	W 2/1 (78/15 P)		
Live Presenters (guest speakers)	_^				-	-	
Self study							
Demonstration						-	
Exhibit							
Guided Discussion							
Simulation – knowledge based						-	
Simulation - hardware	-					├	
Problem solving exercises							
Learning to Mastery						-	
Practice / drill				e.		-	
Structured Review				5			
Feedback on performance						$\vdash$	
Remediation				A.		$\vdash$	
Group activities/collaborative tasks							
Testing Types	urjų lydyvogratio			(# 180 <sub>0</sub> ) (141		V. 14.	
Objective knowledge tests	* 1, 1, 1, 1, 1, 1, 1, 1, 1	National Articles Articles				T T	
Essay						<del>                                     </del>	
Performance test "paper" exercise				2.0		$\vdash$	
Performance test – hardware simulation						1	
Performance test – hardware				2		-	
Oral testing		7 Ny 1				<del>                                     </del>	
No testing/Student course evaluation	Х						
Graphics	15 (1981)	i A Najirja	Gránketegy		i dhagharigh	Anji bi mi	
2D graphics still	X		1	2.3 %4	1 (2)		
3D graphics still		1					
2D animation		1	-			-	
3D animation					-	+	
2D interactive animation		<u> </u>				<del>                                     </del>	
3D interactive animation		<del> </del>		R1 115		$\vdash$	
Pre recorded video /films							
Communications						-	
Audio			- (T. / 3 / 2, T* 3, 50	7.1.3792	I	Ī	
Indirect discourse					<del> </del>	1	
Assigned reading					<del>                                     </del>	1-	
Open Discussion					<del>                                     </del>	+	
Question and answer opportunities	<del>                                     </del>	** 4" - AAA-37/-37" - 3.			+	+	

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Course Name: Multidisciplinary Approach to Head and Neck Trauma	Course N	lumber: A	J156	
Asynchronous Course	V	VEB Base	d Traini	na
Interactivity Factors	Level 1	Level 2	Level 3	Level 4
Administrative Requirements				
Self pacing		>>>>>>	>>>>>>	>>>>>
Group training				
On-demand availability		>>>>>>	>>>>>>	>>>>>
Open entry / open exit	1	>>>>>>	>>>>>>	>>>>>
Detailed student records	<u> </u>	>>>>>>	>>>>>>	>>>>>
Test Security		>>>>>>	>>>>>>	>>>>>
Multiple test forms			>>>>>>	>>>>>
raining / Instruction Approach		. New Avie		
Lecture / Text	X	>>>>>	>>>>>	>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>	>>>>>>	>>>>>
Demonstration			>>>>>>	>>>>>
Exhibit	figergg.		>>>>>>	>>>>>
Guided Discussion			***************************************	
Simulation – knowledge based			>>>>>>	>>>>>
Simulation - hardware			***************************************	******
	1.4			
Problem solving exercises			>>>>>>	>>>>>
Learning to Mastery Practice / drill		>>>>>>	>>>>>>	>>>>>
Structured Review		>>>>>>	>>>>>>	>>>>>
Feedback on performance	T. M		******	>>>>>
Remediation	-	-	>>>>>>	>>>>>
Group activities/collaborative tasks			>>>>>>	>>>>>
			SEC X. VII. 4	And Annual Control of the Control
Testing Types	(			
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>
Essay	[ ]			
Performance test —"paper" exercise			>>>>>>	>>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	X	>>>>>>	>>>>>>	>>>>>
Graphics				
2D graphics still	X	>>>>>>	>>>>>>	>>>>>
3D graphics still	Maria Santa		>>>>>>	>>>>>
2D animation			>>>>>>	>>>>>
3D animation	A-10-1			>>>>>
2D interactive animation	5 Å) 1970			>>>>>
3D interactive animation				
Pre recorded video /films	W. 1944		>>>>>>	>>>>>
Communications				
Audio		>>>>>>	>>>>>>	>>>>>
Indirect discourse				
Assigned reading		>>>>>>	>>>>>>	>>>>>
Open Discussion	ground year to a	n n jernov se circus	المستعم المراجعة عران والمعارض	ACTION TO THE TOTAL OF
Question and answer opportunities	No Company and			

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: Multidisciplinary Approach to Head and Neck Trauma	Course Number: A0156							
Asynchronous Course	Computer Based Training							
Interactivity Factors	Level 1	Level 2	Level 3	Level 4				
Administrative Requirements				s, see a com-				
Self pacing		>>>>>	>>>>>>	>>>>>				
Group training								
On-demand availability		>>>>>>	>>>>>>	>>>>>>				
Open entry / open exit		>>>>>>	>>>>>>	>>>>>				
Detailed student records								
Test Security								
Multiple test forms	Local Chromatilians		>>>>>>	>>>>>				
Training / Instruction Approach	ivitiphin	- 30,413,436						
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>>				
Live Presenters (guest speakers)								
Self study		>>>>>>	>>>>>>	>>>>>				
Demonstration			>>>>>>	>>>>>				
Exhibit	·		>>>>>>	>>>>>>				
Guided Discussion	1							
Simulation - knowledge based			>>>>>>	>>>>>				
Simulation - hardware								
Problem solving exercises		>>>>>>	>>>>>>	>>>>>>				
Learning to Mastery		>>>>>>	>>>>>>	>>>>>				
Practice / drill		>>>>>>	>>>>>>	>>>>>				
Structured Review			>>>>>>	>>>>>				
Feedback on performance		>>>>>>	>>>>>>	>>>>>				
Remediation			>>>>>>	>>>>>				
Group activities/collaborative tasks	de Terres Managements							
Testing Types	TO A THE STREET AND THE STREET		The state of the s	Manufactory and a				
Objective knowledge tests		>>>>>	>>>>>	>>>>>				
Essay								
Performance test –"paper" exercise	Y-II-		>>>>>>	>>>>>>				
Performance test – paper exercise  Performance test – hardware simulation	e de la companya de l		*********					
Performance test – hardware				>>>>>				
Oral testing	P. C.C.							
No testing/Student course evaluation	· ·							
	X	*******	>>>>>>	>>>>>>				
Graphics								
2D graphics still	Х	>>>>>	>>>>>>	>>>>>				
3D graphics still	g of Marchania,		>>>>>	>>>>>				
2D animation			>>>>>>	>>>>>				
3D animation				>>>>>				
2D interactive animation	1 1 1			>>>>>				
3D interactive animation	1 11							
Pre recorded video /films			>>>>>>	>>>>>				
Communications								
Audio		>>>>>>	>>>>>	>>>>>				
Indirect discourse								
Assigned reading		>>>>>>	>>>>>>	>>>>>				
Open Discussion				ASSES AND ASSESSMENT				

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

# **Short Worksheet: Development Time**

	ort Worksheet: Refined			ant Haum Day H	our of Instruction	
Co	ourse Name: Multidiscip	dinary Approa	ch to Head	and Neck Traum	our or instruction	
50	ourse Hame. Wididuscip	milaly Apploa	icii to neau		ased Training Leve	el: 1
		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15	
2	Multiply line 1 by average * hours100			And the state of t		
3	Average hrs. per phase	40	20	25	15	we without a signal and a signa
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3	
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	12	10	20	4.5	
	Total Labor Hours - sum across line 5					47

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings

PPSCP courses based on assumptions given.

# **Short Worksheet: Development Time**

	ort Worksheet: Refined			ent Hours Per H	our of Instruction	-				
Co	urse Name: Multidiscip	linary Approa	ch to Head	and Neck Trauma						
	Media: Computer Based Training Level: 1									
		Analysis	Design	Development	Implementation	Sums				
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15					
2	Multiply line 1 by average * hours				A. e.	The state of the s				
3	Average hrs. per phase	40	20	25	15	Service Management of the Control of				
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3	Manual and a service of the service				
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	12	10	20	4.5					
	Total Labor Hours - sum across line 5					47				

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings

PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet: Web Based Training							
1	rse Name: Multidisciplinary	Course Number: A0156						
Appr	oach to Head and Neck Trauma							
1	Write the sum from Refined Estima estimated number of hrs. per hr. of	Hrs. 47						
2	Average hourly labor cost in dollars	5	\$ 50					
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 2350					
4	Actual number of classroom equiva converted or developed.		Hrs. 13					
5	Compression: If conversions to asy delivery multiply line 4 by .7 (seven the results on line 5. If not a conversion asynchronous delivery skip line 5	Hrs. 9.1						
6	Multiply line 3 by line 5 if a convers asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous delive on line 6.	\$ 21,385						
	<b>്ളാ</b> ത്യള്ളില്ലാള 7 പ്രവർഗാഹ	g Gossk tings siperific	ii: अल्ला					
7	Infrastructure Costs		\$					
7 8	Infrastructure Costs Recurring Costs		\$					
-								
8	Recurring Costs		\$					
8	Recurring Costs  Delivery Labor Costs		\$					
8 9 10	Recurring Costs  Delivery Labor Costs  Travel Costs		\$ \$ \$					
8 9 10 11	Recurring Costs  Delivery Labor Costs  Travel Costs  Miscellaneous Costs		\$ \$ \$					
8 9 10 11 12	Recurring Costs  Delivery Labor Costs  Travel Costs  Miscellaneous Costs  Add line 7 to 12		\$ \$ \$ \$					
8 9 10 11 12 13	Recurring Costs  Delivery Labor Costs  Travel Costs  Miscellaneous Costs  Add line 7 to 12  Total Cost - Add lines 6 and 12.	line 13 by line 14	\$ \$ \$ \$ \$ \$21,385					

Note: 125 total potential participants but less than half are military or government civilian. Web based training for military shown in the second number and cost figure in lines 14 and 15.

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet: Computer Based Training							
1	rse Name: Multidisciplinary oach to Head and Neck Trauma	Course Number: A015	66					
Appi	Write the sum from Refined Estima	ata Warkshoot						
1	estimated number of hrs. per hr. o	Hrs. 47						
2	Average hourly labor cost in dollar	'S	\$ 50					
3	Multiple line 1 by line 2 and put the	e results on line 3.	\$ 2350					
4	Actual number of classroom equiv converted or developed.		Hrs. 13					
5	Compression: If conversion to asy multiply line 4 by .7 (seven tenths) on line 5. If not a conversion to asy skip line 5	Hrs. 9.1						
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by conversion to asynchronous delivers on line 6.	\$ 21,385						
	Do not use lines 7 to 42 for an	ny costs that are to	<b>b</b> eshared					
7	Infrastructure Costs		\$					
8	Recurring Costs		\$					
9	Delivery Labor Costs		\$					
10	Travel Costs		\$					
11	Miscellaneous Costs		\$					
12	Add line 7 to 12		\$					
13	Total Cost - Add lines 6 and 12.		\$ 21,385					
14	Number of potential students		# 125 or 62					
15	Average Cost Per Student Divide	line 13 by line 14	\$ 171.08 / 344.91					
	Constitution of the consti							

Cost Estimate for a Single Course Name: Multidisciplinary A and Neck Trauma						er: A0156			
Technology Selected	Level	1	Level 2	Le	evel 3	Level 4	Do Not Convert		
WBT				+			X		
CBT				1					
VTT	Low			Hig	ıh				
Other	-			13					
Cost Estima	te for	the	Use of We	b Ba	sed Tr	aining, Lev	el 1		
Cost Factors			Values				urce		
1. Labor hours year 1		42	7.7						
2. Labor hours year 2			7.7	⊢ c	ourse T	echnoloav I	Match Table		
3. Labor hours year 3			7.7				vity Factors Table		
4. Labor hours year 4			7.7				,		
5. Labor hours year 5			7.7	┪					
6. Subtotal			38.5	+					
7. Average labor cost		\$ 5	50						
8. Total labor Cost over 5-yr. pe	riod.	\$ 106,925		$\dashv$					
Multiply line 6 by line 7									
Additional Development/ Deliv	erv Co	ost	By Year						
9. Cost year 1		\$		Di	ata to S	upport Cost	Analysis Worksheet		
10. Cost year 2		\$				-рроп оос	7 in any one vivorities		
11. Cost year 3		\$		+					
12. Cost year 4		\$							
13. Cost year 5		\$		+					
14. Total Additional Costs. Sum lines 9 to 13 and enter of line 14	on	\$							
15. Total Course Cost. Add lines 8 and 14 and enter line 15	on \$ 106,92		and 14 and enter on		\$ 106,925				
<ol> <li>Average cost over 5 years.</li> <li>Divide line 15 by 5 and enter line 16.</li> </ol>	on		1,385						
17. Potential students year 1		12	5 / 62	Fr	om Cou	ırse Informa	ntion Summary Sheet		
<ol> <li>Total potential students year</li> <li>(multiply line 17 by 5. and enter on line 18)</li> </ol>		62	5 / 310						
<ol> <li>Average cost per student yr.</li> <li>(divide line 15 by line 18 enter on line 19)</li> </ol>		\$ 1	71.08 / 344	491					

# ARMY FORCE HEALTH PROTECTION CONFERENCE Conversion Analysis

# ARMY FORCE HEALTH PROTECTION CONFERENCE

# Course Purpose

No Government Furnished Information (GFI) was provided on this conference, so the actual purpose is unknown. Our observer noted that the course provided participants with current information affecting the practice and administration of preventive medicine programs in the

# Course Content Stability:

### High

No GFI was provided on this conference, so the assessment of high stability is based solely on our observer's assessment of the material.

# General Presentation Style:

# Distributive

This course was delivered using primarily lecture (97%) with time for optional questions and answers and panel discussion (3%). The majority of the sessions, while falling within the definition of a lecture (one instructor to many learners), were structured to encourage and facilitate discussion and question and answer sessions.

### Instructional Aids

A combination of overhead slides, computer-generated (Power Point) slides, 35 mm, and handouts supported presentation of the course materials.

### Hands-on Activities:

None.

# Degree of Instructional Interaction

Because of the large number of participants, instructional interaction was limited to guestion and answer sessions during the lectures with only a small percentage of attendees being able to participate within the time constraints.

# Relevant Instructional Value: Unknown

Since the course theme and objectives were not provided, we are unable to assess the instructional value.

# Conditional Recommendation

### Convert to Web-Based Training.

Based on the observed content, this conference would be an excellent candidate for conversion to Web-Based Training. However, because we have no current cost or student throughput information, the recommendation is conditional. Our recommendation is based on the nature of the material, most of which is reasonably stable, and the predominance of the lecture method of delivery (97% of presentations), and the heavy use of computer-generated or overhead slides in support of the delivery. It would be important to select a format that would allow questions from participants, and would benefit from a discussion platform. Such a platform would permit interaction between speakers and participants in exploring issues more deeply and in problemsolving to address some of the concerns presented. Most Web-Based presentation platforms have a built-in email capability to ask questions of presenters. In addition, discussion or chat groups could be instituted on existing web sites.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Army Force Health Protection Conference			Course Number: A 0137				
1. Instructional goals of the o	ourse: Unl	known.					
Frequency of course offering	ı per vear	Unknown	· · · · · · · · · · · · · · · · · · ·		Yes	No	
Current length of course in h		28	7. Conve	ert to DL?	X		
4. Number of hours to be conve		28	8. Enhar			X	
5. Number of registered studen	ts	150	This is ar	approximate nun	nber.		
<ol><li>Number of potential students benefit from the course</li></ol>	that could	Unknown					
9. If item 8 = Yes, Specify					-177		
Technology	Level 1	Level 2	Level 3	Level 4	-19-10-10-10-10-10-10-10-10-10-10-10-10-10-	V-74 N	
WTB		X			777	0.00	
CBT						~	
VTT	Low		High	1			
Other					****		
Labor Hours Estimation Meth	od: Short _	X Long _	Synchi	ronous			
						190.00	
Cost Data	7-70-00	711.		**************************************			
10. Total Cost Year One				\$130,200		****	
11. Total Cost Year Two		1000		\$65,100			
12. Total Cost Year Three				\$65,100			
13. Total Cost Year Four				\$65,100			
14. Total Cost Year Five				\$65,100			
15. Total costs year 1 to 5 (Se	14)	\$390,600					
16. Average cost, years 1 to 5	Divide value	e in line 15 b	v 5)	\$78,120			
17. Total potential students over a five-year period. (multiply the number of potential students [item 6 above] by 5.)				Unknown			
18. Average cost per potential student over 5 year period. (divide the value in line 15 by the value in line 17.)				Unknown			
Additional Hardware/Software	ro Doguirod				- VI		
Item:	e Required			Cost per unit	Tatal		
item.				Cost per unit	Total Cost		
Proposed Enhancements		Cost					
				1000			
				***			
Total Enhancement Costs							

Instructional Formats and Physical Training Requirements

Course Name:
Army Force Health Protection Conference

Course Number:
A 0137

of Course ing this structional rmat	Format	Description	Physical Presence Required?	
97%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No	
3%	Panel Discussion	A selected group (often selected for their expertise or experience in a given		
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No	
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?	
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?	
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?	
	Student Verbal Presentations	Students present verbal information to the larger group.	?	
	Student Procedural Presentations	Students present procedural information to the larger group.	?	
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?	
	Shop Activity	Hands-on technical tasks/procedures.	?	
***************************************	Lab Activity	Hands-on laboratory tasks/procedures.	?	

**Course Information Summary Sheet** 

Course Name: Army Force Health Pro			
Course Number: A 0137			
Length of course - number of hours	of instruct	i <b>on</b> : 28	
Number of Registered Students: ap	proximately	150	
Number of potential students that c			-
nstructional goals of the course: U			
Frequency of Course Offering: Unkr			
Continuing Education Credit Offere		Number: Unknown	
		((a)	
		"Check" if observed or documen	
Administrative Requirements  Self pacing	Check	Detailed student records	Check
		Detailed student records	
Group training On-demand availability		Test Security	
		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach Lecture / Text		Looming to Mantage	
Live Presenters (guest speakers)	<b>√</b>	Learning to Mastery Practice / drill	
Self study		Structured Review	
Demonstration			
Exhibit		Feedback on performance Remediation	
Guided Discussion			1
Simulation (roll play, in-basket)		Group activities/collaborative tasks	
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	<del></del>
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	1
Performance test – hardware		No testing/Student course eval	
1 chomane test maraware			
Graphics			
2D graphics still	1	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	-
		Pre recorded video /films	1
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	1
Assigned reading			1
			<del></del>

**Course Technology Match Table** 

Course: Army Force Health Protection Con	Technologies					
Administrative Requirements	Check	CBT	WBT	VTT		
Self pacing						
Group training						
On-demand availability				Acres 1		
Open entry / open exit						
Detailed student records		St. 12				
Test Security		, J. W. 131.				
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	1					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises						
Learning to Mastery						
Practice / drill				The same of the sa		
Structured Review						
Feedback on performance				1.10		_
Remediation				10.00		_
Group activities/collaborative tasks						_
Testing Types						
Objective knowledge tests			T			
Essay			V 1			
Performance test –"paper" exercise				A Person		
Performance test – hardware simulation				2		_
Performance test – hardware			***			
Oral testing						
No testing/Student course evaluation	1					
Graphics						
2D graphics still	<b>√</b>		1			
3D graphics still						
2D animation						
3D animation						
2D interactive animation						
3D interactive animation				factor all and its		
Pre recorded video /films	1					
Communications						_
Audio						
Indirect discourse						_
Assigned reading						_
Open Discussion			g g p comme.			
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side, then this technology should not be used for the course.

Course Name: Army Force Health Protection Conference	Course Number: A 0137				
Asynchronous Course	WEB Based Training				
Interactivity Factors	Level 1	Level 2	Level 3	Level 4	
Administrative Requirements					
Self pacing		>>>>>>	>>>>>>	>>>>>	
Group training					
On-demand availability		>>>>>>	>>>>>>	>>>>>	
Open entry / open exit		>>>>>>	>>>>>>	>>>>>	
Detailed student records		>>>>>>	>>>>>>	>>>>>	
Test Security		>>>>>>	>>>>>>	>>>>>>	
Multiple test forms			>>>>>>	>>>>>	
Training / Instruction Approach					
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>	
Live Presenters (guest speakers)					
Self study		>>>>>>	>>>>>>	>>>>>	
Demonstration			>>>>>>	>>>>>	
Exhibit			>>>>>	>>>>>	
Guided Discussion	2				
Simulation – knowledge based			>>>>>>	>>>>>	
Simulation - hardware					
Problem solving exercises	-		>>>>>>	>>>>>	
Learning to Mastery		>>>>>>	>>>>>	>>>>>	
Practice / drill		>>>>>	>>>>>>	>>>>>	
Structured Review		*********		>>>>>	
Feedback on performance	A more part of		>>>>>	>>>>>	
Remediation		_	>>>>>>	>>>>>	
Group activities/collaborative tasks	5		***************************************		
Testing Types					
Objective knowledge tests	I	>>>>>	>>>>>>	>>>>>	
		2222222	,,,,,,,,	222222	
Essay  Performance test –"paper" exercise	A Comment			>>>>>>	
Performance test – hardware simulation	E. Francisco		>>>>>>	7777777	
Performance test – hardware					
Oral testing					
No testing/Student course evaluation	<b>7</b>	>>>>>>	>>>>>>	>>>>>	
Graphics		T	1	1	
2D graphics still	<b>V</b>	>>>>>	>>>>>>	>>>>>	
3D graphics still	10.2 M. M. 2000000		>>>>>>	>>>>>	
2D animation			>>>>>	>>>>>	
3D animation	A.			>>>>>	
2D interactive animation				>>>>>	
3D interactive animation		,			
Pre recorded video /films		1	>>>>>	>>>>>	
Communications	T	T		T	
Audio		>>>>>>	>>>>>>	>>>>>	
Indirect discourse					
Assigned reading		>>>>>>	>>>>>>	>>>>>	
Open Discussion	The second second		That all somes		
Question and answer opportunities	The state of the s				

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Technology Interactivity Factors

Protection Conference Asynchronous Course	Computer Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Description						
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training On-demand availability						
		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>	>>>>>>	>>>>>		
Detailed student records						
Test Security  Multiple test forms			>>>>>>	>>>>>		
Fraining / Instruction Approach						
Lecture / Text	/	>>>>>	>>>>>	>>>>>		
Live Presenters (guest speakers)	4			,,,,,,,		
Self study		>>>>>>	>>>>>>	>>>>>>		
Demonstration						
Exhibit			>>>>>>	>>>>>		
Guided Discussion			>>>>>>	>>>>>		
Simulation – knowledge based						
Simulation - hardware			>>>>>>	>>>>>		
Problem solving exercises		>>>>>>	>>>>>>	>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>	>>>>>>	>>>>>		
Structured Review			>>>>>>	>>>>>		
Feedback on performance		>>>>>	>>>>>>	>>>>>		
Remediation			>>>>>	>>>>>		
Group activities/collaborative tasks						
Testing Types	T					
Objective knowledge tests		>>>>>>	>>>>>	>>>>>		
Essay			1			
Performance test -"paper" exercise			>>>>>>	>>>>>		
Performance test – hardware simulation				>>>>>		
Performance test – hardware						
Oral testing						
No testing/Student course evaluation	1	>>>>>>	>>>>>	>>>>>		
Graphics						
2D graphics still	/	>>>>>	>>>>>	>>>>>		
3D graphics still			>>>>>	>>>>>		
2D animation			>>>>>	>>>>>		
3D animation				>>>>>		
2D interactive animation			4.4	>>>>>		
3D interactive animation						
Pre recorded video /films		1	>>>>>>	>>>>>		
Communications						
Audio		>>>>>	>>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>>	>>>>>>	>>>>>		
Open Discussion						

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

# **Course Cost Estimation Worksheet**

1	Course Cost Estimation Worksheet: Web Based Training		
	se Name: Army Force Health Protection Course Number: A 0137 Frence	// L	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	\$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	\$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	28
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	20
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	\$91,140.00
	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	V Apple
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	\$0.00
13	Total Cost - Add lines 6 and 12.	\$	\$91,140.00
14	Number of potential students.	\$	Unknown
15	Average Cost Per Student Divide line 13 by line 14	\$	Unknown

# **Course Cost Estimation Worksheet**

	Course Cost Estimation Worksheet: CBT Multimedia		e .
	urse Name: Army Force Health Protection nference  Course Number: A 0137		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	\$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	\$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	28
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	20
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	\$91,140.00
.A. ,	Do not use lines 7 to 12 for any costs that are to be shared.	<u> </u>	
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	\$0.00
13	Total Cost - Add lines 6 and 12.	\$	\$91,140.00
14	Number of potential students.	\$	Unknown
15	Average Cost Per Student Divide line 13 by line 14	\$	Unknown

Course Name: Army Medical Speci Executive Management Course	se Name: Army Medical Specialist Corps utive Management Course				624	
Technology Selected	Level 1	Level 2	Level 3	Level 4		
WBT		X				
CBT						
VTT	ow		High			
Other						
Cost Factors		Values		Source	4.4	
1. Labor Hours Year 1		2604		Course Tee	chnology Match Table, y Interactivity Factors Table	
2. Labor Hours Year 2		1302			y interactivity Factors Table	
3. Labor Hours Year 3		1302		-		
4. Labor Hours Year 4	***************************************	1302		-		
5. Labor Hours Year 5		1302		1		
5. Subtotal		7812		For the purposes of this analysis, we will assume that there is only a 50% turnover course materials in years two through five		
7. Average Labor Cost per hour		\$50				
8. Total labor cost over a 5 year pe Multiply line 7 by line 6.	riod.	\$390,600				
Additional Development Costs I	3y Year					
9. Cost year 1				Data to Su	pport Cost Analysis Worksheet	
10. Cost year 2						
11. Cost year 3	**********					
12. Cost year 4						
13. Cost year 5						
14. Total additional costs. Sum line and enter on line 14	es 9 to 13	\$0				
15. Total Course Cost. Add lines 8 and enter on line 15.	and 14	\$390,600				
16. Average cost over 5 years. Div 15 by 5 and enter on line 16.	ide line	\$78,120				
17. Potential students year 1.		Unknown		From Cour	se Information Summary Sheet	
18. Total potential students year 1 (multiply line 17 by 5 and enter on li		Unknown				
19. Average cost per student year (Divide line 15 by line 18 and enter 18)		Unknown		Round up to the nearest whole dollar.		

# **Endodontics for the General Dentist Conversion Analysis**

#### ENDODONTICS FOR THE GENERAL DENTIST

#### Course Purpose

The course is designed to increase the endodontic knowledge and clinical expertise of Army general dentists so that the dentist can provide a higher quality of endodontic dental care for patients. Emphasis is placed upon practicing within the military environment.

# Course Content Stability:

#### Mederate

The majority of the course focuses on advances in the field and research findings. Other presentations (about 1/3) focused on areas that may not be 'new" but are rarely dealt with or seen, to reinforce good clinical practice.

#### General Presentation Style:

#### Distribution

The standard method of presentation was lecture. Though the students asked few questions, all instructors were willing to accept questions during and immediately their presentations.

#### Instructional Aids:

Two 35mm slide projectors and wireless microphones and speakers supported all presentations.

#### Hands-on Activities

One demonstration session was given. This was supported partly by manufacturers of equipment. Some students were able of operate the equipment, most observed.

#### Degree of Instructional Interaction

While opportunity did exist to ask questions and exchange views with the presenters most students seemed to prefer to talk to the presenter after the course or during the breaks. Generally the students observed and some took notes. Yet the level of retention was probably high since the work involved was directly related to what the students do.

### Relevant Instructional Value:

#### High

The content was clearly focused and within the criteria for a PPSCP course. Students were exposed to new concepts/approaches. This course did not wander off topic - probably due to the fact that the Endodontics Residency Program conducted it. The course directors simply followed the same good practices followed at the school.

#### Recommendation

Primary Recommendation: Convert to VTT.

Secondary Recommendation: Convert to WBT.

This course is ideal for Web based training (WBT) as well as VTT. It is coherent and it is not dependent on hands-on activities. On the Web, the course could easily be made highly interactive, while as a VTT course, the actual level of student /instructor interactivity would not be reduced. The major difference is the overall cost. As a Web based training course, the course would cost \$325,500 over five years to provide yearly training for every dentist in the Army at a cost of \$70 a year. VTT could provide the same training at a cost of \$14 per student. Other than cost, the most significant difference between the two approaches is a loss of flexibility if VTT is used. As a Web based training course, the course would be available on demand, at any time, simply by logging on and registering on-line. As a VTT based course, the course would be available once live. For those who were unable to view the course through VTT, it could be provided with a set of VCR tapes. The advantage of VTT is cost and the advantage of WBT is flexibility. Our first choice of VTT is based on lower cost to the Army.

### DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Endodontics for the General Dentist			Cou A020		Num	ber:				
Instructional goals of the cou art and science of Endodontics. Provi practice.	<b>Irse :</b> Prov de practica	vide th	ne ger wledge	nera	al den ind ski	tist wi	th increased it can be app	knowled	dge of t	he ical
2. Frequency of course offering p	er year:	# 1			*****				Yes	No
3. Current length of course in hou		# 19	,	7.	Cor	vert	to DL?		X	110
4. Number of hours to be converted		# 19		8.		ance				X
5. Number of registered students		# 70					-			
6. Number of potential students th	at								-	
could benefit from the course		# 93	12							
9. If item 8 = Yes, Specify			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
Technology	Level 1	Lev	vel 2	2	Leve	1 3	Level 4			
WBT				+						
CBT				_	-					
VTT	Low	X		_	High					
Other				7						
									-	
<b>Labor Hours Estimation Method</b>	: Short	Lor	ng	S	vnch	rono	us X			
		-								
	(	Cost [	Data							
10. Total Cost Year One		7				\$ 19	,150			
11. Total Cost Year Two						\$ 11				
12. Total Cost Year Three		· · · · · · · · · · · · · · · · · · ·				\$ 11				
13. Total Cost Year Four						\$ 11				
<ol><li>14. Total Cost Year Five</li></ol>						\$ 11				
15. Total costs year 1 to 5 (Sun	of lines	10 th	roug	gh	14)	\$ 63	,750			
16. Average cost, years 1 to 5 (div				by	(5)	\$ 12	,750			
17. Total potential students over a	five year	perio	od.				-			
(multiply the number of potent	ial studen	its (ite	em 6	ab	ove)					
by 5.)						# 46	60			
18. Average cost per potential s	tudent o	ver 5	year	•						
period.										
(divide the value in line 15 by	the value	in line	e 17)			\$ 14				
							W			
	nal Hard	ware	/Soft	wa	re Re	<u> </u>				
Item:						Cos	t per unit	Total	Cost	
Proposed Enhancement(s)	Cost									-
	\$									
	\$		.,,,,		, , , , , , , , , , , , , , , , , , ,	•		-		
	\$									
Total Enhancement Costs	\$									
Lord San Application		,					1 A.S.			

Instructional Formats and Physical Training Requirements

Course Name: Endodontics for the General Dentist			Course Number: A0202			
of Course ing this itructional rmat	Format	Des	cription	Physical Presence Required?		
76%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.				
	Panel Discussion	A selected group (often selected for area) discusses an issue in front or about the ideas being presented.	r their expertise or experience in a given f students. Students may ask questions	No		
	Poster Session	A group of individuals presents mater the material being presented, and ask	rial in a poster format. Students may read k questions about the material.	No		
Markovi	Small Group Discussion	Small groups of students (2~5) discus	ss an assigned topic.	?		
	Group Discussion	A larger group discusses an issue - emphasis on student participation.	- usually led by a facilitator – with heavy	?		
11%	Demonstration	Students observe the application of I participating themselves.	knowledge. In this case, students are not	?		
13%	Student Verbal Presentations	Students present verbal information to the larger group.				
	Student Procedural Presentations	Students present procedural informat	ion to the larger group.	?		
	Field Trip	Students visit an instructionally relev individuals who present information in	rant site to observe activities or meet with an applied setting.	?		
	Shop Activity	Hands-on technical tasks/procedures	,	?		
	Lab Activity	Hands-on laboratory tasks/procedure	S.	?		

# **Course Information Summary Sheet**

Course Name: Endodontics for the Ge	neral Dentis	st			
Course Number: A0202					
Length of course - number of hours	of instruct	ion: 19			
Number of Registered Students: 70					
		from Alice and A			
Number of potential students that co					
<b>Instructional goals of the course:</b> Prart and science of Endodontics. Provid clinical practice.	ovide the go le practical b	eneral dentist with increased knowledg knowledge and skills that can be applie	e of the d in their		
Frequency of Course Offering: Once	e a year				
Continuing Education Credit Offered	? Yes	Number: 32			
For each item listed, check ✓ rov		"Check" if observed or documen	ted.		
Administrative Requirements	Check		Check		
Self pacing		Detailed student records			
Group training		Test Security			
On-demand availability		Multiple test forms			
Open entry / open exit					
Training / Instruction Approach					
Lecture / Text	Х	Learning to Mastery			
Live Presenters (guest speakers)		Practice / drill			
Self study		Structured Review			
Demonstration	Х	Feedback on performance			
Exhibit		Remediation			
Guided Discussion		Group activities/collaborative tasks			
Simulation (roll play, in-basket)					
Problem solving exercises					
Testing Types					
Objective knowledge tests		Performance test hardware	T		
Essay		Oral testing			
Performance test –"paper"		No testing/Student course eval			
Performance test – hardware					
Graphics					
2D graphics still	X	3D animation	T		
3D graphics still		2D interactive animation			
2D animation		3D interactive animation			
		Pre recorded video /films			
Communications	•				
Audio		Open Discussion			
Indirect discourse		Question and answer			
Assigned reading			1		
			1		

**Course Technology Match Table** 

Course (Name) Endodontics for the General Dentist			Technologies				
Administrative Requirements	Check	СВТ	WBT	VTT		T	
Self pacing							
Group training		T :-	1			-	
On-demand availability						-	
Open entry / open exit	-			100		+	
Detailed student records				- No. 1		-	
Test Security		- M - A - A - A - A				+	
Multiple test forms						+	
Training / Instruction Approach							
Lecture / Text	X			-			
Live Presenters (guest speakers)							
Self study						+	
Demonstration	Х						
Exhibit						-	
Guided Discussion						-	
Simulation – knowledge based						-	
Simulation - hardware			:			-	
Problem solving exercises						-	
Learning to Mastery						-	
Practice / drill				250		_	
Structured Review			-			-	
Feedback on performance			-	100		-	
Remediation				-		+-	
Group activities/collaborative tasks		F-1				-	
Testing Types	1						
Objective knowledge tests							
Essay						+	
Performance test -"paper" exercise							
Performance test – hardware simulation			-				
Performance test - hardware			K1 1816	e e		-	
Oral testing		skar speke				<u> </u>	
No testing/Student course evaluation							
Graphics			1				
2D graphics still	Х			T	T	T	
3D graphics still		-					
2D animation				-			
3D animation						1	
2D interactive animation							
3D interactive animation				and a state of			
Pre recorded video /films							
Communications			•	•		1	
Audio							
Indirect discourse		1	Mark 1				
Assigned reading							
Open Discussion		121 5 5	***** . T				
Question and answer opportunities							

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Course Name: Endodontics for the General Dentist	Course	lumber: A	JZUZ	
Asynchronous Course	٧	VEB Base	ed Trainii	na
Interactivity Factors	Level 1	Level 2	Level 3	Level
Administrative Requirements				
Self pacing		>>>>>>	>>>>>>	>>>>>
Group training	All Control			
On-demand availability		>>>>>>	>>>>>>	>>>>>
Open entry / open exit		>>>>>>	>>>>>>	>>>>>
Detailed student records		>>>>>>	>>>>>>	>>>>>
Test Security		>>>>>>	>>>>>>	>>>>>
Multiple test forms			>>>>>>	>>>>>
Training / Instruction Approach				
Lecture / Text	X	>>>>>>	>>>>>	>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>	>>>>>>	>>>>>
Demonstration			>>>>>>	>>>>>
Exhibit		Х	>>>>>>	>>>>>
Guided Discussion				
Simulation – knowledge based			******	
Simulation - knowledge based Simulation - hardware			>>>>>>	>>>>>
Problem solving exercises				
			>>>>>>	>>>>>
Learning to Mastery Practice / drill		>>>>>>	>>>>>>	>>>>>
Structured Review		>>>>>>	>>>>>>	>>>>>
				>>>>>
Feedback on performance Remediation			>>>>>>	>>>>>
			>>>>>	>>>>>
Group activities/collaborative tasks			·	
Testing Types		T	T	
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>
Essay				
Performance test –"paper" exercise			>>>>>>	>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation		>>>>>>	>>>>>>	>>>>>
Graphics	<b></b>			-
2D graphics still	Х	>>>>>>	>>>>>>	>>>>>
3D graphics still			>>>>>>	>>>>>
2D animation			>>>>>>	>>>>>
3D animation				>>>>>
2D interactive animation				>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>	>>>>>
Communications				
Audio		>>>>>	>>>>>	>>>>>
Indirect discourse				
Assigned reading		>>>>>>	>>>>>>	>>>>>
Open Discussion	11.	union of the		
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: Endodontics for the General Dentist	Course Number: A0202					
Asynchronous Course	Cor	nputer Ba	ased Trai	ining		
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training				(		
On-demand availability		>>>>>>	>>>>>>	>>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records						
Test Security						
Multiple test forms			>>>>>>	>>>>>		
Training / Instruction Approach						
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)						
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration		Х	>>>>>>	>>>>>		
Exhibit	t ij		>>>>>>	>>>>>		
Guided Discussion						
Simulation – knowledge based			>>>>>>	>>>>>>		
Simulation - hardware	1.8	***************************************		****		
Problem solving exercises		>>>>>>	>>>>>>	>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>>	>>>>>>	>>>>>		
Structured Review			>>>>>>	>>>>>		
Feedback on performance		>>>>>>	>>>>>>	>>>>>		
Remediation			>>>>>	>>>>>		
Group activities/collaborative tasks	F. 7.					
Testing Types				****		
Objective knowledge tests	[	>>>>>>	>>>>>>	>>>>>		
Essay						
Performance test –"paper" exercise	1188		>>>>>>	>>>>>>		
Performance test – hardware simulation				>>>>>		
Performance test – hardware	W.					
Oral testing	Contraction					
No testing/Student course evaluation		>>>>>>	>>>>>>	>>>>>		
Graphics						
2D graphics still	Х	>>>>>>	>>>>>>	>>>>>		
3D graphics still	^		>>>>>>	>>>>>		
2D animation			>>>>>>	>>>>>		
3D animation				>>>>>		
2D interactive animation				>>>>>		
3D interactive animation						
Pre recorded video /films	12		>>>>>>	>>>>>		
Communications						
Audio		>>>>>>	>>>>>>			
Indirect discourse		111111111	////////	>>>>>		
Assigned reading		*******	*******			
		>>>>>>	>>>>>>	>>>>>		
Open Discussion						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: Endodontics for the General Dentist	Course Number: A0202					
Synchronous Course	Video Teletraining					
Interactivity Factors	Level 1 Low					
Administrative Requirements						
Self pacing						
Group training		>>>>>>				
On-demand availability						
Open entry / open exit	<u> </u>					
Detailed student records						
Test Security		>>>>>>				
Multiple test forms		>>>>>				
Training / Instruction Approach						
Lecture / Text	X	>>>>>>				
Live Presenters (guest speakers)		>>>>>>				
Self study		4.3				
Demonstration	X	>>>>>>				
Exhibit		>>>>>				
Guided Discussion						
Simulation – knowledge based		>>>>>>				
Simulation - hardware						
Problem solving exercises	A Section of the sect					
Learning to Mastery						
Practice / drill	_					
Structured Review	- 1 f " 1 ab.					
Feedback on performance						
Remediation	F.01					
Group activities/collaborative tasks	- 1					
Testing Types						
Objective knowledge tests		-				
Essay	2.50h0000000000					
Performance test –"paper" exercise	_					
Performance test – hardware simulation	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					
Performance test – hardware						
Oral testing	*					
No testing/Student course evaluation		>>>>>>				
Graphics						
2D graphics still	X	>>>>>				
3D graphics still		>>>>>>				
2D animation		>>>>>>				
3D animation		>>>>>>				
2D interactive animation						
3D interactive animation	A STATE OF THE STA					
Pre recorded video /films		>>>>>>				
Communications		1				
Audio		>>>>>>				
Indirect discourse						
Assigned reading		>>>>>>				
Open Discussion						
Open Discussion	Properties and a second second					

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Short Worksheet: Development Time** 

	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction									
	Course Name: Endodontics for the General Dentist Media: Web Based Training Level: 2									
		Analysis	Design	Development	Implementation	Sums				
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15					
2	Multiply line 1 by average * hours200	TO AND THE COLUMN TO THE COLUM			Entra Carlos Car	gert einfliche Jastoph Mitter				
3	Average hrs. per phase	80	40	50	30					
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3					
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24	20	40	9					
	Total Labor Hours - sum across line 5			2.		93				

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

**Short Worksheet: Development Time** 

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: Endodontics for the General Dentist Media: Computer Based Training Level: 2 Analysis Design Development Implementation Percentage of Time 1 Spent by Task Type .40 .20 .25 .15 by Level Multiply line 1 by average \* 2 hours 200 Average hrs. per 3 80 40 50 30 phase Adjustments \*\* for hours per phase Use 1.\_ for added .3 .5 .8 .3 time and .\_ for less time Adjusted hrs. per phase. Multiply line 3 24 20 40 9 by line 4 Total Labor Hours -93 sum across line 5

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet: Web Based Training							
	Course Name: Endodontics for the General Dentist  Course Number: A0202							
1	Write the sum from Refined Estimated number of hrs. per hr. of		Hrs. 93					
2	Average hourly labor cost in dollars	S	\$ 50					
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 4650					
4	Actual number of classroom equiva- converted or developed.	alent hours to be	Hrs. 19					
5	Compression: If conversion to asymmetriply line 4 by .7 (seven tenths) on line 5. If not a conversion to asyskip line 5	Hrs. 14						
6	Multiply line 3 by line 5 if a conver asynchronous delivery <b>OR</b> line 3 b conversion to asynchronous delive on line 6.	\$ 65,100						
	Do not use lines 7 to 12 for an	y costs that are to	be shared.					
7	Infrastructure Costs		\$					
8	Recurring Costs		\$					
9	Delivery Labor Costs		\$					
10	Travel Costs		\$					
11	Miscellaneous Costs		\$					
12	Add line 7 to 12		\$					
13	Total Cost - Add lines 6 and 12.		\$					
14	Number of potential students		# 932 <sup>1</sup>					
15	Average Cost Per Student Divide	line 13 by line 14	\$ 70					
*			2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					

The course is considered appropriate for all dentists. The estimated number of dentists in the Army in 1999 will be 932.

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet: Computer Based Training							
	Course Name: Endodontics for the General Dentist  Course Number: A0202							
1	Write the sum from Refined Estimate estimated number of hrs. per hr. of i	,	Hrs. 93					
2	Average hourly labor cost in dollars		\$ 50					
3	Multiple line 1 by line 2 and put the r	results on line 3.	\$ 4650					
4	Actual number of classroom equival converted or developed.	ent hours to be	Hrs. 19					
5	Compression: If conversion to asyn multiply line 4 by .7 (seven tenths) a on line 5. If not a conversion to asyn skip line 5	Hrs. 14						
6	Multiply line 3 by line 5 if a conversion asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous delivery on line 6.	line 4 if not a	\$ 65,100					
 	Do not use lines 7 to 12 for any	costs that are to	be shared.					
7	Infrastructure Costs		\$					
8	Recurring Costs		\$					
9	Delivery Labor Costs		\$					
10	Travel Costs		\$					
11	Miscellaneous Costs		\$					
12	Add line 7 to 12		\$					
13	Total Cost - Add lines 6 and 12.		\$					
14	Number of potential students		# 932					
15	Average Cost Per Student: Divide li	\$ 70						
	93677							

**Calculation of Synchronous Training Costs** 

Course Name: Endodontics for the General	Course Number: A0202
Dentist	
Lahor	Costs:
Development Cost = (320 hrs.) x average hourly	00313.
rate (\$50)	\$ 16,000
Course Managers Studio Cost = (Total studio time	V 10,000
+ 1 hour for each day the course is offered) x	
number of times course is presented x average	
hourly rate (\$50)	\$ 1150
Non-local Labor Cost = Number of non-local	1100
presenters ) x (length of the course in days +1) x	
number of times offered x average daily rate (\$400	\$ 400
Local Labor Cost + Number of local presenters x	¥ 100
average hourly rate (\$50) X 2 X number of times	
course is offered.	\$ 1,100
Total Labor Costs	\$ 18,650
Total Labor Oosts	\$ 10,000
Additional Cost (any co	osts not captured above)
Total Per Diem =	
(length of course in days plus one	
travel day x number of non-local presenters) x	
(local daily per diem rate) x number of time the	
course will be presented.	\$ 500
Total Air Fair = (Average Round Trip Air Fair x	
number of non-local presenters) x number of times	
the course will be presented.	\$ -0-
Total dollar amount paid as honorariums	\$ -0-
(Other)	
Total Estimated Cost: Add Total Box Diom	Airfare, Labor Costs, and Additional Costs.
Total Labor Costs	\$ 18,650
Total Per Diem	\$ 500
Total Airfare	\$ -0-
Total paid as honorariums	\$ -0-
(other)	\$ -0-
TOTAL COURSE COST Year 1	\$ 19,150
Cost Per Student = Total course costs divided by	7 .01.00
potential number of students	\$ 21
	T

Cost Estimate for a Single Course Name: Endodontics for				r Period ourse Numb	er: A0202			
Technology Selected	l 1	Level 2	Level 3	Level 4				
WBT	-							
CBT								
VTT	Low	>	(	High				
Other								
Cost Factors			Values		So	urce		
1. Labor hours year 1		32			- 00	arcc		
2. Labor hours year 2		16		Course T	echnology N	Match Table		
3. Labor hours year 3		16						
4. Labor hours year 4		16		Technology Interactivity Factors Table				
5. Labor hours year 5		16		-				
6. Subtotal		96						
7. Average labor cost		\$50						
8. Total labor Cost over 5 yr.	period	<u> </u>						
Multiply line 6 by line 7	portou.	\$ 4	18,000					
Additional Development/ Del	ivery C	ost	By Year					
9. Cost year 1			3,150	Data to S	upport Cost	Analysis Worksheet		
10. Cost year 2			3,150		аррон осы	Thraige Workeries		
11. Cost year 3			3,150					
12. Cost year 4			3,150			***		
13. Cost year 5			3,150					
14. Total Additional Costs .			,					
Sum lines 9 to 13 and ente	r on	\$ 15,750						
line 14			,					
15. Total Course Cost. Add lines 8 and 14 and ent line 15	er on	\$ 6	83,750					
<ol> <li>Average cost over 5 years.</li> <li>Divide line 15 by 5 and enter line 16.</li> </ol>	er on	\$ ^	12.750					
17. Potential students year 1		93	32	From Cou	ırse Informa	ation Summary Sheet		
18. Total potential students yea 5 (multiply line 17 by 5. ar enter on line 18)	nd	46	60					
<ol> <li>Average cost per student y</li> <li>(divide line 15 by line enter on line 19)</li> </ol>		\$ ^	14	Round up	to the near	est whole dollar		

# Restorative Dentistry and Dental Materials Conversion Analysis

#### RESTORATIVE DENTISTRY AND DENTAL MATERIALS

#### Course Purpose:

To provide a review of current techniques, and recent advances, trends, and developments in restorative dentistry and dental materials.

#### Course Content Stability

Due to time limitations, all topics cannot be presented on a yearly basis. Therefore, not only will content change depending on current research and developments, but topics will change as well.

#### General Presentation Style:

#### Lecture

The entire course is delivered as lectures augmented by slides or overheads. That is, the information was delivered using a lecture format as the primary vehicle in which one (1) instructor presented information to many learners. All students attend all lectures. Their are no breakout sessions

### Instructional Aids:

There was extensive use of 35 mm slides providing images of teeth, dental casts, tools, and treatment materials. In addition, each of the instructors provided handouts with supplemental information relevant to the topic they were addressing

#### Hands-on Activities:

#### None

#### Degree of Instructional Interaction:

There were opportunities for the students to ask questions, and the degree to which this interaction was engaged in varied from instructor to instructor. In general, these questions concerned points of clarification. The question/answer periods were generally limited to an exchange between an individual student and the instructor, such that the interaction did not expand into a general discussion period involving several students.

#### Relevant Instructional Value: High

This course provides a significant amount of information that is relevant to the professional performance of the attendees.

#### Recommendation:

#### Convert to Video Teletraining

This course could be converted to almost any distance learning format. However, given that the level of interactivity is low, it is ideal for conversion to Video Teletraining (VTT). As is currently done, the course can be presented once to all participants through VTT. While approximately 120 individuals currently take part, the course is appropriate to some 450 individuals. This approach will provide an extremely low per student cost while expanding the number of students able to access this information. Only one hour of the current instruction is not recommended for conversion to VTT. This hour focuses on administrative and career issues. Recommend that this topic be added to a Web page that could be updated as often as necessary.

## DISTANCE LEARNING CONVERSION REPORT FORM

	se Name:			Cou	ırse	Num	ber:	A0208			
Resto	prative Dentistry and Dental Mate	rials									
4 1											A41-8111 11-11-11
trends	structional goals of the course s and developments in restorative dation for Oral Restoration."	e : To prove dentistry	vide an	e a revie	w c	aterial	ent tec s. The	chniques, rec eme "Establi	cent adv shing a l	ances, Basic	
2 5	roguency of course offering in		ш								_ <u> </u>
	requency of course offering p		#	1	7	0	4	- DI 0		Yes	No
	urrent length of course in hour umber of hours to be converte		#					o DL?		X	V
	umber of registered students	d		120	Ο.	Enn	ance?	<u> </u>			X
	umber of potential students th	ot.	#	120							
	ould benefit from the course	al	#	450							
	and belieff from the course		π	430						1	
9. I	f item 8 = Yes, Specify		Т				-				
	nology	Level 1	_	Level	2	Leve	el 3	Level 4			
100	WBT		-	LOVOI	-	LUV	01 0	ECVCI 4			
	CBT		+								
	VTT	Low	X			High	<u> </u>				
	Other		Ť			1 1191	•				
Labo	or Hours Estimation Method:	Short	Lo	ona	Sv	nchr	onous	s X			
				<u> </u>						-	
		(	Со	st Data							
10. 7	Total Cost Year One				-		\$ 36	.590	T		
11.	Total Cost Year Two						\$ 28		-		
12.	Total Cost Year Three					***	\$ 28	,590	-		VIA 20 NOTE 1
13.	Total Cost Year Four						\$ 28	,590			
!4.	Total Cost Year Five						\$ 28	,590		***************************************	
<i>15.</i> 7	Total costs year 1 to 5 (Sum	of lines	1	0 throu	gh	14)	\$ 15	0,950			
	Average cost, years 1 to 5 (div				by	/ 5)	\$ 30	,190			
	Fotal potential students over a										
	multiply the number of potent	ial studer	nts	(item 6	ab	ove)					
	by 5.)						# 22	50			
	Average cost per potential s	tudent o	ve	r 5 yea	r						
perio		منامي مطلا	:	Um a 47			A CO				
(	divide the value in line 15 by	tne value	ın	line 17	)		\$ 68	************			
	Additio	nal Hard	1	ara/Saf	4	aro D	oauir	a d			
Item:		IIIai Haiu	1 44 (	are/Sur	LVV	are K		t per unit	Total	Coot	
iteiii.							COS	t per unit	Total	Cost	
Duan	acced Embarcoment(s)	04									
Prop	posed Enhancement(s)	Cost									
		\$									
		\$									
<b>+</b>	(Fabour 10	\$									
lota	I Enhancement Costs	\$									
	er en							.98	100		

**Instructional Formats and Physical Requirements of Training** 

Course Name:

Course Number: A0208

Restorative Dentistry and Dental Materials

of Course ling this structional rmat	Format	Description	Physical Presence Required?
95%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	Discussion A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Student Procedural Presentations	Students present procedural information to the larger group.	?
1	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

**Course Information Summary Sheet** 

Course Name: Restorative Dentist	ry and Denta	al Materials			
Course Number: A0208					
ength of course - number of hours	of instruct	ion: - 28 hours			
Number of Registered Students: 12		20 110410			
Number of potential students that co	ould benefit	t from this course: 450			
	dentistry ar	review of current techniques, recent add nd dental materials. Theme "Establishir			
Frequency of Course Offering: Once	e a year				
Continuing Education Credit Offered		Number: 28			
Solitinaing Education Great Offered	1: 165	Nulliber. 20			
For each item listed, check / roy	w marked	"Check" if observed or documen	ted		
Administrative Requirements	Check		Check		
Self pacing	- OHOOK	Detailed student records	Oncon		
Group training		Test Security			
On-demand availability		Multiple test forms			
Open entry / open exit		·			
Training / Instruction Approach					
Lecture / Text	X	Learning to Mastery			
Live Presenters (guest speakers)		Practice / drill			
Self study		Structured Review			
Demonstration		Feedback on performance			
Exhibit		Remediation			
Guided Discussion		Group activities / collaborative tasks			
Simulation (roll play, in-basket)					
Problem solving exercises					
Testing Types					
Objective knowledge tests		Performance test hardware			
Essay "		Oral testing	1		
Performance test – "paper"  Performance test – hardware		No testing/Student course	X		
Performance test – nardware					
Graphics					
2D graphics still	X	3D animation	<u> </u>		
3D graphics still	<del></del>	2D interactive animation			
2D animation		3D interactive animation	-		
		Pre recorded video /films			
			1		
Communications					
Communications Audio		Open Discussion	T		
		Open Discussion  Question and answer opportunities			

**Course Technology Match Table** 

Course Name: Restorative Dentistry and Dental Materials			Technologies				
Administrative Requirements	Check	CBT	WBT	VTT	T	T	
Self pacing						_	
Group training						<del>                                     </del>	
On-demand availability						+	
Open entry / open exit				1 / 1		-	
Detailed student records		1				+	
Test Security		No.		-			
Multiple test forms				-		+	
Training / Instruction Approach							
Lecture / Text	Х					+	
Live Presenters (guest speakers)		1				-	
Self study					_	1	
Demonstration		-				1	
Exhibit						-	
Guided Discussion							
Simulation – knowledge based						_	
Simulation - hardware						-	
Problem solving exercises							
Learning to Mastery						-	
Practice / drill				J. J.		+	
Structured Review						+	
Feedback on performance						+	
Remediation				- E		+	
Group activities/collaborative tasks	<del> </del>					-	
Testing Types							
Objective knowledge tests	T					T	
Essay							
Performance test - "paper" exercise				· \$ 3.			
Performance test – hardware simulation							
Performance test – hardware							
Oral testing						<del></del>	
No testing/Student course evaluation	Х					-	
Graphics					1		
2D graphics still	Х		T	1		1	
3D graphics still						-	
2D animation						_	
3D animation						+	
2D interactive animation						1	
3D interactive animation				est an		1	
Pre recorded video /films						+	
Communications					1		
Audio					I	T	
Indirect discourse						+	
Assigned reading					<u> </u>	+	
Open Discussion						1	
Question and answer opportunities	-				-	+	

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Course Name: Restorative Dentistry and Dental Materials	Course Number: A0208							
Asynchronous Course	WEB Based Training							
Interactivity Factors	Level 1	Level 2	Level 3	Level				
Administrative Requirements								
Self pacing		>>>>>>	>>>>>>	>>>>>				
Group training								
On-demand availability		>>>>>>	>>>>>>	>>>>>				
Open entry / open exit		>>>>>>	>>>>>>	>>>>>				
Detailed student records		>>>>>>	>>>>>>	>>>>>				
Test Security		>>>>>>	>>>>>>	>>>>>				
Multiple test forms	The same		>>>>>>	>>>>>				
Fraining / Instruction Approach								
Lecture / Text	X	>>>>>	>>>>>>	>>>>>				
Live Presenters (guest speakers)	^							
Self study		>>>>>>						
Demonstration			>>>>>>	>>>>>				
Exhibit	Ter and the		>>>>>>	>>>>>				
			>>>>>	>>>>>				
Guided Discussion	4							
Simulation – knowledge based	* C		>>>>>>	>>>>>				
Simulation - hardware	1 1/2							
Problem solving exercises			>>>>>>	>>>>>				
Learning to Mastery		>>>>>>	>>>>>	>>>>>				
Practice / drill		>>>>>>	>>>>>>	>>>>>				
Structured Review				>>>>>				
Feedback on performance	For		>>>>>>	>>>>>				
Remediation	G <sup>2</sup>		>>>>>	>>>>>				
Group activities/collaborative tasks								
Testing Types								
Objective knowledge tests		>>>>>>	>>>>>	>>>>>				
Essay	person prosess			200				
Performance test –"paper" exercise	S # #		>>>>>>	>>>>>				
Performance test – hardware simulation								
Performance test – hardware	M			La man pour se				
Oral testing								
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>>				
Graphics				-				
2D graphics still	Х	>>>>>>	>>>>>>	>>>>>				
3D graphics still	Ma TOT.		>>>>>>	>>>>>				
2D animation	District.		>>>>>>	>>>>>				
3D animation	1	STEEL STEEL STEEL ST.		>>>>>				
2D interactive animation				>>>>>				
3D interactive animation	8							
Pre recorded video /films	to the second		>>>>>>	>>>>>				
Communications			L	1				
Audio		>>>>>>	>>>>>>	>>>>>				
Indirect discourse				1				
Assigned reading		>>>>>>	>>>>>>	>>>>>				
Open Discussion								
Question and answer opportunities	0 0 0 0 0 0 0 0							

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: Restorative Dentistry and Dental Materials	Course Number: A0208						
Asynchronous Course	Computer Based Training						
Interactivity Factors	Level 1	Level 2	Level 3	Level 4			
Administrative Requirements							
Self pacing		>>>>>>	>>>>>	>>>>>			
Group training							
On-demand availability		>>>>>>	>>>>>>	>>>>>			
Open entry / open exit		>>>>>>	>>>>>	>>>>>			
Detailed student records							
Test Security							
Multiple test forms	V 6		>>>>>>	>>>>>			
Training / Instruction Approach							
Lecture / Text	X	>>>>>	>>>>>>	>>>>>			
Live Presenters (guest speakers)		the said of					
Self study		>>>>>>	>>>>>>	>>>>>			
Demonstration			>>>>>>	>>>>>			
Exhibit	\$ 70 F 85		>>>>>>	>>>>>			
Guided Discussion		Section 1					
Simulation – knowledge based			>>>>>>	>>>>>			
Simulation - hardware	f*.						
Problem solving exercises		>>>>>>	>>>>>>	>>>>>			
Learning to Mastery		>>>>>>	>>>>>>	>>>>>			
Practice / drill		>>>>>>	>>>>>>	>>>>>			
Structured Review			>>>>>>	>>>>>			
Feedback on performance		>>>>>>	>>>>>>	>>>>>			
Remediation			>>>>>>	>>>>>			
Group activities/collaborative tasks	Mary in the content of the content o						
Testing Types							
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>			
Essay							
Performance test - "paper" exercise	Assimilar,		>>>>>>	>>>>>			
Performance test – hardware simulation		1500 0,000 00		>>>>>			
Performance test – hardware			The second				
Oral testing	1						
No testing/Student course evaluation	Χ	>>>>>>	>>>>>>	>>>>>			
Graphics							
2D graphics still	Х	>>>>>>	>>>>>>	>>>>>			
3D graphics still	, c 4 x		>>>>>>	>>>>>			
2D animation			>>>>>>	>>>>>			
3D animation		Same son and		>>>>>			
2D interactive animation				>>>>>			
3D interactive animation							
Pre recorded video /films			>>>>>>	>>>>>			
Communications							
Audio		>>>>>>	>>>>>>	>>>>>			
Indirect discourse							
Assigned reading		>>>>>>	>>>>>>	>>>>>			
Open Discussion	No. Assessment and Assessment	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -					
Question and answer opportunities							

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support tha factor.

Course Name: Restorative Dentistry and Dental Materials	Course Number: A0208					
Synchronous Course	Video T	eletraining				
Interactivity Factors	Level 1 Low					
Administrative Requirements						
Self pacing						
Group training		>>>>>>				
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security		>>>>>>				
Multiple test forms		>>>>>>				
Training / Instruction Approach						
Lecture / Text	X	>>>>>>				
Live Presenters (guest speakers)		>>>>>				
Self study						
Demonstration		>>>>>>				
Exhibit		>>>>>>				
Guided Discussion	Control of the control					
Simulation – knowledge based		>>>>>>				
Simulation - hardware						
Problem solving exercises	The state of					
Learning to Mastery		7 73				
Practice / drill	· 18					
Structured Review						
Feedback on performance	1.6					
Remediation	· VC					
Group activities/collaborative tasks	1.1					
Testing Types						
Objective knowledge tests						
Essay	Age to see (ag) 10 to 1, 1 W. Strommonton and section of the					
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test hardware	- 1					
Oral testing	ē -					
No testing/Student course evaluation	Х	>>>>>>				
Graphics						
2D graphics still	X	>>>>>				
3D graphics still		>>>>>>				
2D animation		>>>>>>				
3D animation		>>>>>>				
2D interactive animation						
3D interactive animation						
Pre recorded video /films		>>>>>>				
Communications						
Audio		>>>>>				
Indirect discourse						
Assigned reading		>>>>>>				
Open Discussion						
Question and answer opportunities	- 1 Do man					

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Short Worksheet: Development Time** 

	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction								
Course Name: Restorative Dentistry Media: Web Based Training Level: 1									
		Analysis	Design	Development	Implementation	Sums			
1	Percentage of Time Spent by Task Type by Level	.40	.20	,25	.15				
2	Multiply line 1 by average * hours100								
3	Average hrs. per phase	40	20	25	15				
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3				
5	Adjusted hrs. per phase. Multiply line 3 by line 4	12	10	20	4.5				
	Total Labor Hours - sum across line 5					47			

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

**Short Worksheet: Development Time** 

	onore worksheet. Development Time								
	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction								
Course Name: Restorative Dentistry Media: Computer Based Training Level: 1									
		Analysis	Design	Development	Implementation	Sums			
1	Percentage of Time Spent by Task Type by Level	.40	.20	,25	.15				
2	Multiply line 1 by average * hours100								
3	Average hrs. per phase	40	20	25	15				
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3				
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	12	10	20	4.5				
	Total Labor Hours - sum across line 5	:				47			

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

### **Course Cost Estimation Worksheet**

	e Cost Estimation Worksheet Course Cost Estimate Worksheet: Web Based	l Training						
Cou	Course Name: Restorative Dentistry Course Number: A0208							
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 47						
2	Average hourly labor cost in dollars	\$ 50						
3	Multiple line 1 by line 2 and put the results on line 3.	\$ 2350						
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 27						
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5							
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery <b>OR</b> line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$ 44,650						
	Do not use lines 7 to 12 for any costs that are to	be shared.						
7	Infrastructure Costs	\$						
8	Recurring Costs	\$						
9	Delivery Labor Costs	\$						
10	Travel Costs	\$						
11	Miscellaneous Costs	\$						
12	Add line 7 to 12	\$						
13	Total Cost - Add lines 6 and 12.	\$						
14	Number of potential students	# 450						
15	Average Cost Per Student:: Divide line 13 by line 14	\$ 100						

# **Course Cost Estimation Worksheet**

Course Cost Estimation Worksheet  Course Cost Estimate Worksheet: Computer Based Training									
	and the second s	A0208							
1	Write the sum from Refined Estima estimated number of hrs. per hr. of	Hrs. 47							
2	Average hourly labor cost in dollars	\$ 50							
3	Multiple line 1 by line 2 and put the	\$ 2350							
4	Actual number of classroom equiva- converted or developed.	Hrs. 27							
5	Compression: If conversion to asy multiply line 4 by .7 (seven tenths) on line 5. If not a conversion to asy skip line 5	Hrs. 19							
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous deliver on line 6.	\$ 44,650							
	Do not use lines 7 to 12 for any costs that are to be shared.								
7	Infrastructure Costs		\$						
8	Recurring Costs	\$							
9	Delivery Labor Costs	\$							
10	Travel Costs	\$							
11	Miscellaneous Costs	\$							
12	Add line 7 to 12	\$							
13	Total Cost - Add lines 6 and 12.	\$							
14	Number of potential students	# 450							
15	Average Cost Per Student:: Divide	\$ 100							

**Calculation of Synchronous Training Costs** 

Lahor	Costs:
Development Cost = (320 hrs.) x average hourly	Costs.
rate (\$50)	\$ 16,000
Course Managers Studio Cost = (Total studio time	\$ 10,000
+ 1 hour for each day the course is offered) x	
number of times course is presented x average	
hourly rate (\$50)	\$ 1550
Non-local Labor Cost = Number of non-local	\$ 1000
presenters ) x (length of the course in days +1) x	
	¢ 8 000
number of times offered x average daily rate (\$400	\$ 8,000
Local Labor Cost + Number of local presenters x	
average hourly rate (\$50) X 2 X number of times course is offered.	0.700
	\$ 700
Total Labor Costs	\$ 26,250
Additional Cost (any c	osts not captured above)
Total Per Diem =	
(length of course in days plus one	
travel day x number of non-local presenters) x	
(local daily per diem rate) x number of time the	
course will be presented.	\$ 2,540
Total Airfare = (Average Round Trip Airfare x	
number of non-local presenters) x number of times	
the course will be presented.	\$ 3,900
Total dollar amount paid as honorariums	\$ 3,900
(Other)	7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -
Title ( ) ( ) ( ) ( ) ( ) ( )	
Total Estimated Cost: Add Total Per Diem,	Airfare, Labor Costs, and Additional Costs. \$ 26,250
Total Per Diem	\$ 2,540
Total Airfare	\$ 2,540
Total paid as honorariums	\$ 3,900
(other)	\$ N/A
TOTAL COURSE COST Year 1	\$ 36,590
Cost Per Student = Total course costs divided by	
potential number of students	\$ 82

Cost Estimate for a Single Course Name: Restorative De Materials				Year Peric ourse Numb				
Technology Selected	Leve	11	Level 2	Level 3	Level 4			
WBT X								
CBT								
VTT Low				High				
Other								
Cost Factors		Values		Source				
1. Labor hours year 1		893						
2. Labor hours year 2		893		Course Technology Match Table				
3. Labor hours year 3		893				vity Factors Table		
4. Labor hours year 4		893						
5. Labor hours year 5								
6. Subtotal		44	65					
7. Average labor cost		\$5	0					
8. Total labor Cost over 5 yr.	period.	\$223,250						
Multiply line 6 by line 7		•						
Additional Development/ Del	ivery C	ost	By Year					
9. Cost year 1				Data to S	Data to Support Cost Analysis Worksheet			
10. Cost year 2								
11. Cost year 3		\$						
12. Cost year 4		\$						
13. Cost year 5		\$						
14. Total Additional Costs .								
Sum lines 9 to 13 and enter on		\$0						
line 14								
15. Total Course Cost.								
Add lines 8 and 14 and enter on		\$ 2	223,250					
line 15								
16. Average cost over 5 years.								
Divide line 15 by 5 and enter on			14,650					
line 16.		4.5	-0					
17. Potential students year 1			50	From Cot	ırse Intorma	ation Summary Sheet		
18. Total potential students yea		22	E0					
5 (multiply line 17 by 5. and enter on line 18)			50					
19. Average cost per student	/r 1 to							
5. (divide line 15 by line 18 and			00	Round up to the nearest whole do				
enter on line 19)			00	Tround up	to the near	est miloie dollai		
onto on the roy		1						

Cost Estimate for a Single Course Name: Restorative Der Materials					eriod umber: A02	208		
						·		
Technology Selected	Leve	11	Level 2	Level 3	Level 4			
WBT								
CBT X								
VTT Low			H					
Other								
Cost Factors			Values		Source			
1. Labor hours year 1		893						
2. Labor hours year 2		893		Cours	se Technolo	ngy Match Table		
3. Labor hours year 3		893			Technology Interactivity Factors Table			
4. Labor hours year 4		893						
5. Labor hours year 5		893						
6. Subtotal		4465						
7. Average labor cost		\$50						
8. Total labor cost over 5 yr. pe	riod.	***************************************						
Multiply line 6 by line 7		\$2	23,250					
Additional Development/ Deliv	ery C	ost	By Year					
9. Cost year 1		\$	\$ Data to Support Cost Analysis Wor			Cost Analysis Worksheet		
10. Cost year 2		\$						
11. Cost year 3		\$						
12. Cost year 4		\$	A					
13. Cost year 5		\$						
14. Total Additional Costs .								
Sum lines 9 to 13 and enter on			\$0					
line 14								
15. Total Course Cost.								
Add lines 8 and 14 and enter	on	\$ 223,250						
line 15								
16. Average cost over 5 years.								
Divide line 15 by 5 and enter on			\$ 44,650					
line 16.								
17. Potential students year 1			50	From	Course Info	ormation Summary Sheet		
18. Total potential students year 1 to								
5 (multiply line 17 by 5 and			50					
enter on line 18)								
19. Average cost per student yr		_	100					
5. (divide line 15 by line 18	and	\$ '	100	Roun	a up to the	nearest whole dollar.		
enter on line 19)								

Course Name: Restorative Dentistry Materials					Course Number: A0208				
Technology Selected	Leve	11	Level	2	Level 3	Level 4			
WBT									
CBT	-								
VTT	Low	X			High				
Other									
Cost Factors			Value						
Labor hours year 1		52	Values			•	Source		
2. Labor hours year 2		525		Course	Course Took water Mark 1 To 1				
3. Labor hours year 3		365		Course Technology Match Table					
		365			Technology Interactivity Factors Table				
<ul><li>4. Labor hours year 4</li><li>5. Labor hours year 5</li></ul>			365						
6. Subtotal		36							
			985	-					
<ol> <li>Average labor cost</li> <li>Total labor cost over 5 yr. pe</li> </ol>	ا ما د	\$5	U		_				
Multiply line 6 by line 7	eriod.	\$ 99,250							
	toru Ca	t	Dy Va						
Additional Development/ Delivery Co						24 A 2 2 4 2 5 1 1 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2			
9. Cost year 1 10. Cost year 2			0,340		Data to Support Cost Analysis Workshe				
11. Cost year 3			0,340						
12. Cost year 4			0,340						
13. Cost year 5			0,340		<del></del>				
14. Total Additional Costs .		Ψ	0,340						
Sum lines 9 to 13 and enter on									
line 14			51,700						
15. Total Course Cost.			71,700						
Add lines 8 and 14 and ente	r on								
line 15			50,950						
16. Average cost over 5 years.			30,000						
Divide line 15 by 5 and enter on									
line 16.			0,190						
17. Potential students year 1			0		From Co	ourse Infor	mation Summary Sheet		
18. Total potential students year 1 to					1.3., 30		Janninary Onobl		
5 (multiply line 17 by 5, and									
enter on line 18)			50						
19. Average cost per student y	r. 1 to								
5. (divide line 15 by line 18 and					Round up to the nearest whole dolla		earest whole dollar.		
enter on line 19)			8						

**Note:** For VTT Use 320 hrs prep time for year one and 160 hrs prep time for years 2 to 5 Labor hours use the following

Labor Hours = Prep time + (total studio time + 1 hr for every day the course is offered) + (number of non-local presenters) x (length of course in days + 1 travel day x 8) x (the number of times the course is offered) + (number of local presenters x 2) x number of times the course is offered Additional Costs = (total air fair + total per diem + total honorariums) x 5

# 1998 Military Veterinary Medical Seminar Conversion Analysis

#### 1998 Military Veterinary Medical Seminar

The purpose of the course is to update attendees on Veterinary Corps issues and technical skills The theme of the seminar was "Support to Contingencies-Military and Civilian."

### Course Content Stability: Low

The focus is on the latest developments in the area, and therefore the topics change each year.

# General Presentation Style:

Distributive

This course could best be described as a "conference". That is, the information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners. Approximately 95% of the instruction was delivered using a basic lecture format. Approximately 2% used film/video as part of the presentation, there was one demonstration/shop activity and one poster session.

#### Instructional Aids:

Most of the speakers used overhead slides, 35mm slides, or PowerPoint presentation files to aid them in their instruction.

#### Hands-on Activities:

None

#### Degree of Instructional Interaction:

There were opportunities for the students to ask questions, and the degree to which this interaction was engaged in varied from instructor to instructor. In general, these questions concerned points of clarification, and served to allow the learner to better understand how to apply the information in a real world situation. The question/answer periods were generally limited to an exchange between an individual student and the instructor, such that the interaction did not expand into a general discussion period involving several students.

## Relevant Instructional Value: Low

The assessment or "Low Instructional Value" is based strictly on the assessment that less than 30% of the sessions appeared to support the stated objective/theme of the conference. Of 24 general sessions designed either exclusively for officer attendance or in combination with warrant officers and 91 R/T NCOs, only 11 appeared to relate to the "Contingencies and Disasters" theme. Of the 26 Saturday breakout sessions designed primarily for officers and warrant officers. only six appeared to be related to the theme. Of the 15 sessions on the first day of the course designated for officers and warrant officers, only two appeared to be loosely related to the theme. This equates to 29.2% of the sessions that appeared to relate to the objective. When broken down into hours, this equates to approximately nine of the 30 hours. Additionally, the welcome letter to attendees stated that in addition to the presentations supporting the seminar theme. "... subject matter experts in the functional areas of our VETCOM mission will provide numerous presentations, but they are only intended to be catalysts to promote discussion and information sharing." This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be wisely accomplished without further researching the topic independently. The main thing to be gained from attending this course was an opportunity for informal networking, and making contacts among peers.

#### Recommendations

Convert portions relating to the theme to Web-Based Training. Those portions that do not meet the objectives of the theme can be eliminated or presented via the web in a non-learning format. Because the content of this course will change every year, the actual portion to be designed as distance learning versus that presented in another format will have to be made during the analysis phase.

This "course" is actually more of a conference insofar as there is no structured set of intended learning outcomes unified by a specific theme. The information itself could easily be presented in the form of Web Based training accompanied by an electronic journal. As such, the entire population could have access to the information, and the presenters could have an "electronic publication" to add to their vitas. In this way, the educational value of the course could be increased insofar as students could participate in interactive activities and be assessed using a distance learning technology.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: 1998 Military Seminar	edical	Course I	Number: A 0306			
Instructional goals of the						
issues and technical skills. Th	e theme of the	e seminar v	vas "Suppo	rt to Contingencies-N	Military and Civili	an." 
Frequency of course offerir	a por voor	11	1		Yes	N <sub>a</sub>
Current length of course in		30	7 Conve	ert to DL?	X	No
Number of hours to be con-		91	8. Enhar		^	Х
Number of registered stude		360	O. Lillar	100 :		^
Number of potential studen		500				
benefit from the course						
9. If item 8 = Yes, Specify			1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		1	
Technology	Level 1	Level 2	Level 3	Level 4		
WBT		Х				
CBT						
VTT	Low		High			
Other						
Labor Hours Estimation Met	hod: Short _	X Long	Synch	ronous		
Cost Data						
10. Total Cost Year One				\$29,295		
11. Total Cost Year Two				\$14,648		
12. Total Cost Year Three				\$14,648		
13. Total Cost Year Four				\$14,648		
14. Total Cost Year Five		10.4		\$14,648		
15. Total costs year 1 to 5 (	Sum of lines	10 through	114)	\$87,887		
16 Average cost vege 1 to 5	(Divide velve	in line 45 l	5\	047.570		
<ul><li>16. Average cost, years 1 to 5</li><li>17. Total potential students ov</li></ul>	•		• ,	\$17,578		
number of potential students [i			luitiply the	2,500		
18. Average cost per potent	_		neriod	\$35.16		
(divide the value in line 15 by t	the value in lin	ie 17.)	penou.	\$33.10		
Additional Hardware/Softw	are Required					
Item:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		******	Cost per unit	Total	
					Cost	
Proposed Enhancements		Cost		1		
Electronic Journal		1				
Total Enhancement Costs						* ****

Only nine of the 30 hours appeared to support the objective and theme of the seminar.

Instructional Formats and Physical Training Requirements

Course Name: 1998 Military Veterinary Medical
Seminar

Course Number: A 0306

of Course ing this tructional rmat	" Format	Description	Physical Presence Required?		
94%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No		
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No		
2%	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No		
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?		
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?		
2%	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.			
	Student Verbal Presentations	Students present verbal information to the larger group.	?		
	Student Procedural Presentations	Students present procedural information to the larger group.	?		
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?		
2%	Shop Activity	Hands-on technical tasks/procedures.	?		
	Lab Activity	Hands-on laboratory tasks/procedures.	?		

**Course Information Summary Sheet** 

Course Name: 1998 Military Veterinary	Medical Se	eminar	
Course Number: A 0306			
Length of course - number of hours	of instruct	ion: 30	
Number of Registered Students: 360			
Number of potential students that co		from this source. 500	
<b>Instructional goals of the course:</b> The Corps issues and technical skills. The them Civilian."	e purpose of ne of the sem	the course is to update attendees on Veter inar was "Support to Contingencies-Military	nary and
Frequency of Course Offering: Annu	al		
Continuing Education Credit Offered	? Yes	Number: 15	
For each item listed, check ✓ rov	u markad	"Chock" if observed or decumen	tod
Administrative Requirements	Check	Check in observed of documen	Check
Self pacing	CHECK	Detailed student records	Check
Group training		Test Security	
On-demand availability	-	Multiple test forms	
	1	Multiple test forms	-
Open entry / open exit			
Training / Instruction Approach Lecture / Text			
	<b>√</b>	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration	<b>1</b>	Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	✓
Performance test – hardware		10.0	
Graphics			
2D graphics still	<b>1</b>	3D animation	T
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	1
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer opportunities	
Assigned reading	-	The second secon	
3	-		

**Course Technology Match Table** 

<b>Course</b> 1998 Military Veterinary Medical Seminar	Technologies					
Administrative Requirements	Check	CBT	WBT	VTT	T	1
Self pacing	Officer	OD!	1451	The state of the s		
Group training						
On-demand availability						
Open entry / open exit				z mw.pam styr. 29		-
Detailed student records	-			Car		
Test Security		P. Films				
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	1					
Live Presenters (guest speakers)	7					
Self study						
Demonstration						
Exhibit	1			-		_
Guided Discussion						-
Simulation – knowledge based				ļ .		
Simulation - knowledge based Simulation - hardware			_			
Problem solving exercises						
Learning to Mastery			-			
Practice / drill				1 Jane	<u></u>	
Structured Review						-
Feedback on performance	-		-	4.20		
Remediation						
Group activities/collaborative tasks						
Testing Types						<u> </u>
Objective knowledge tests				1	7	<u>.</u>
Essay						
Performance test "paper" exercise				1800		
Performance test – hardware simulation	1			- 1		-
Performance test – hardware simulation						
Oral testing						_
No testing/Student course evaluation	1				-	-
Graphics						<u> </u>
2D graphics still	1			T	1	
3D graphics still	-					_
2D animation					-	+
3D animation					-	-
2D interactive animation						-
3D interactive animation				2*	-	-
Pre recorded video /films	1					
Communications		l				
Audio	T			T	1	1
Indirect discourse						-
Assigned reading					+	-
Open Discussion	-				-	
Question and answer opportunities		1.7000			1	-

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

Course Name: 1998 Military Veterinary Medical Seminar		lumber: A				
Asynchronous Course	WEB Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training			11.0			
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records		>>>>>>	>>>>>>	>>>>>		
Test Security		>>>>>>	>>>>>>	>>>>>		
Multiple test forms			>>>>>>	>>>>>		
Training / Instruction Approach						
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)		1				
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration		1	>>>>>>	>>>>>		
Exhibit	And the		>>>>>>	>>>>>		
Guided Discussion	9.0					
Simulation – knowledge based			>>>>>>	>>>>>		
Simulation - hardware						
Problem solving exercises	* Cx 1		>>>>>>	>>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>	>>>>>>	>>>>>		
Structured Review				>>>>>		
Feedback on performance	les agreed a "		>>>>>>	>>>>>		
Remediation			>>>>>>	>>>>>		
Group activities/collaborative tasks						
Testing Types		The state of the s				
Objective knowledge tests		>>>>>	>>>>>	>>>>>		
Essay				777777		
Performance test –"paper" exercise	Marie Company		>>>>>>	>>>>>		
Performance test – hardware simulation			7777777	222222		
Performance test – hardware simulation						
Oral testing	Y A					
No testing/Student course evaluation	1	>>>>>>	>>>>>>	>>>>>		
Graphics						
2D graphics still		>>>>>>				
3D graphics still	<b>V</b>	7777777	>>>>>>	>>>>>		
2D animation			>>>>>>	>>>>>		
			>>>>>	>>>>>		
3D animation				>>>>>		
2D interactive animation				>>>>>		
3D interactive animation		,				
Pre recorded video /films		<b>1</b>	>>>>>>	>>>>>		
Communications	Γ	T 222227	1	T		
Audio		>>>>>>	>>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>>	>>>>>>	>>>>>		
Open Discussion			ender e de			
Question and answer opportunities	¥ V o d'Elvey≱					

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Technology Interactivity Factors** 

Medical Seminar	Computer Based Training					
Asynchronous Course						
Interactivity Factors	Level 1	Level 2	Level 3	Level		
Administrative Requirements						
Self pacing		>>>>>	>>>>>>	>>>>>		
Group training						
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records	TOTA WT 1514		Parties fulfi at 190 up a Februari	a great and a		
Test Security						
Multiple test forms			>>>>>>	>>>>>		
Training / Instruction Approach						
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)						
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration	m a second	1	>>>>>>	>>>>>		
Exhibit	. 1 33 34		>>>>>>	>>>>>		
Guided Discussion						
Simulation – knowledge based			>>>>>>	>>>>>		
Simulation - hardware						
Problem solving exercises		>>>>>>	>>>>>>	>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>>	>>>>>>	>>>>>		
Structured Review			>>>>>>	>>>>>		
Feedback on performance		>>>>>>	>>>>>>	>>>>>		
Remediation	colle marie		>>>>>>	>>>>>		
Group activities/collaborative tasks	Part of the Part					
Testing Types						
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>		
Essay						
Performance test "paper" exercise		14	>>>>>>	>>>>>		
Performance test – hardware simulation	A.			>>>>>		
Performance test – hardware						
Oral testing	A CONTRACTOR					
No testing/Student course evaluation	1	>>>>>>	>>>>>>	>>>>>		
Graphics	-			1		
2D graphics still	1	>>>>>>	>>>>>	>>>>>		
3D graphics still			>>>>>>	>>>>>		
2D animation	5 4		>>>>>>	>>>>>		
3D animation				>>>>>		
2D interactive animation	A.			>>>>>		
3D interactive animation						
Pre recorded video /films		1	>>>>>>	>>>>>		
Communications		-				
Audio		>>>>>	>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>>	>>>>>>	>>>>>		
Open Discussion						
Question and answer opportunities						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

# **Short Worksheet: Development Time**

Short Worksheet: Refined Estimate of Dev Course Name: 1998 Military Veterinary Med			or mour or man	uction		
	Media: W Based	eb		Level: 2		
	Analysis	Design	Development	Implementation	Sum	
1 Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15		
2 Multiply line 1 by average * hours						
200			. 1984 1986 1			
3 Average hrs. per phase	80.00	40.00	50.00	30.00		
4 Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30		
5 Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00		
Total Labor Hours - sum across line 5					93.00	

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Short Worksheet: Development Time**

Sh	ort Worksheet: Refined Estimate of Dev	elopment	Hours Pe	er Hour of Instr	uction		
Cc	ourse Name: 1998 Military Veterinary Medi	cal Semina	ar				
		Media: CE	3T Multim	edia	Level: 2		
		Analysis	Design	Development	Implementation	Sum	
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	·	
2	Multiply line 1 by average * hours	, d		Let			
	200						
3	Average hrs. per phase	80.00	40.00	50.00	30.00	÷ .	
4	Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30		
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	3-	
	Total Labor Hours - sum across line 5			1	1	93.00	

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

	Course Cost Estimation Worksheet: Web Based Training		Person
Cou Sem	rse Name: 1998 Military Veterinary Medical Course Number: A0416		
Selli			
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	9
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	6.3
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	29,295.00
	Do not use lines 7 to 12 for any costs that are to be shared.	المدر الم	KT J. L. T.
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	29,295.00
14	Number of potential students.	#	500
15	Average Cost Per Student Divide line 13 by line 14	\$	58.59

# **Course Cost Estimation Worksheet**

<b>X</b>	Course Cost Estimation Worksheet: CBT Multimedia		
	urse Name:1998 Military Veterinary Medical Course Number: A 0306 minar		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	9
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	6.3
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	29,295.00
1.5	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	29,295.00
14	Number of potential students.	#	500
15	Average Cost Per Student Divide line 13 by line 14	\$	58.59
:			

# Cost Estimate for a Single Course Over a Five Year Period

Course Name: 1998 Military Vete Seminar			umber: A 0	306	
Technology Selected	Level 1	Level 2	Level 3	Level 4	
WBT		X			
CBT					
VTT	Low		High		
Other					
Cost Factors		Values		Source	Au .
Labor Hours Year 1		586			chnology Match Table,
					y Interactivity Factors Table
2. Labor Hours Year 2	2.0	293		1	,
3. Labor Hours Year 3		293		1	
4. Labor Hours Year 4		293			
5. Labor Hours Year 5		293		1	
6. Subtotal		1,758			
7. Average Labor Cost per hour		\$50			
8. Total labor cost over a 5 year p Multiply line 7 by line 6.	period.	\$87,900			
Additional Development Costs	By Year	.1			
9. Cost year 1		\$0		Data to Su	pport Cost Analysis Worksheet
10. Cost year 2		\$0			
11. Cost year 3		\$0			
12. Cost year 4		\$0			
13. Cost year 5		\$0			
14. Total additional costs. Sum li and enter on line 14	nes 9 to 13	\$0			
15. Total Course Cost. Add lines and enter on line 15.	15. Total Course Cost. Add lines 8 and 14 and enter on line 15.				
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.		\$17,580			
17. Potential students year 1.		500		From Cour	rse Information Summary Sheet
18. Total potential students year 1 to 5 (multiply line 17 by 5 and enter on line 18)		2500			
19. Average cost per student year 1 to 5 (Divide line 15 by line 18 and enter on line 18)		\$35		Round up	to the nearest whole dollar.

# Military Veterinary Foreign Animal Diagnostics Course Analysis

# MILITARY VETERINARY FOREIGN ANIMAL DISEASE DIAGNOSTICS

#### Course Purpose:

To teach military veterinarians about various foreign animal diseases that are a serious threat to the United States' animal industry through the clinical presentation of these diseases and through lectures on their role in the event of a foreign animal disease outbreak.

## Course Content Stability:

# High

Although new findings can be presented, the general content of the course remains relatively stable. Changes may be made to reflect new threats from various diseases that may enter the United States.

## General Presentation Style:

## Lecture/Lab/Hands-on

The course was mostly lecture-format, followed by laboratory sessions. Interjected between the lecture/labs were a variety of seminars, panel discussions, and case studies.

#### Instructional Aids:

Overhead slides, videos, and lab equipment were used to fully prepare the vets in their abilities to recognize these diseases.

## Hands-on Activities:

Hands-on laboratory activities are necessary to develop a full understanding of the progression of each disease. Students see the disease in the live animal and watch clinical signs develop day to day.

## Degree of Instructional Interaction:

Students participated in the evaluation and necropsy of the animals.

## Relevant Instructional Value:

#### High

The FADDL laboratory is the only location in the US where these diseases can be observed and studied due to their highly contagious nature. This prepares the vets to recognize harmful diseases whose presence could cause serious illness.

#### Recommendation:

#### Do not convert the course to a distance learning format.

It is doubtful that this could take the place of actual lecture time since the lab-experience benefits from a contiguous presentation of the relevant material (i.e. the students review the material relevant to a particular lab exercise immediately before participating). Whether any lecture could be *replaced* would have to be decided by a Subject Matter Expert (a veterinarian that teaches the course).

## Requirements of Distance Learning Technology

At the present time, students receive reading materials to complete before attending this course. This pre-course material could be converted to a multimedia format with the intent to *supplement* and *enhance* the learning experience. No cost or time savings would be expected from such a conversion.

# Patient Administration Symposium Conversion Analysis

# Patient Administration Symposium

The purpose of this course is to provide conceptual and operational overviews of the changing military health system to leaders in the Patient Administration Community and to provide officers the opportunity to receive hands-on training on new/emerging health systems and applications...

# Course Content Stability:

Due to technological advances, the material presented is based on current systems and trends Some of the topics will remain the same, but information is updated and new capabilities of systems are demonstrated.

## General Presentation Style: Distributive

The course was primarily lecture format with an opportunity for questions and answers. In some cases the lecture was supported by a demonstration.

#### Instructional Aids:

The majority of the speakers used PowerPoint slides to support their presentations. A significant portion of the speakers also provided the students with handouts. Laptop computers were used in two presentations.

#### Hands-on Activities:

There were two (7% of course instructional time) hands-on learning experiences focusing on the implementation of new or revised software programs. These could easily be simulated (or emulated) in either a CBT or WBT environment.

## Degree of Instructional Interaction

There was an opportunity to ask questions following presentations. The exchanges were informational.

# Relevant Instructional Value: Moderate

Although the material presented reflected the latest information available, there was a lack of formal objectives and a clear focus in the curriculum.

## Recommendation

Convert to Web-Based Training.

The instructional value of this course would benefit from delivery on a distance learning technology that allowed for one-to-many communications, and an asynchronous delivery. Handson activities in this particular case lend themselves easily to a Web environment since they involved instruction on computer software.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Patient Admir	posium	Course N	rse Number: A0416			
Instructional goals of the health system to leaders in the receive hands-on training on n	Patient Admi	nistration C	community a	and to provide office	ws of the cha	nging military unity to
O F		14				
2. Frequency of course offering		1	7.0	11 510	Yes	No
<ol> <li>Current length of course in</li> <li>Number of hours to be convenient.</li> </ol>		23	7. Conve		Х	
		23	8. Enhan	ice?		X
5. Number of registered stude		54				
Number of potential studen benefit from the course	ts that could	150				
9. If item 8 = Yes, Specify						
Technology	Level 1	Level 2	Level 3	Level 4		
WBT		Х			2100	
СВТ						
VTT	Low		High		-	
Other						·
Labor Hours Estimation Met	hod: Short _	K Long	Synchi	ronous		- MW.20
Cost Data						
10. Total Cost Year One				\$103,463		***
11. Total Cost Year Two				\$103,463		
12. Total Cost Year Three				\$103,463		
13. Total Cost Year Four				\$103,463		-77.00
14. Total Cost Year Five	-			\$103,463		
15. Total costs year 1 to 5 (S	Sum of lines	 10 through	14)	\$517,313		View
			,	4017,010		***
16. Average cost, years 1 to 5	(Divide value	in line 15 l	ov 5)	\$103,463		
17. Total potential students ov				750		
number of potential students [i						
18. Average cost per potent	ial student o	ver 5 vear	period.	\$690		
(divide the value in line 15 by t						
	****	· ·			1	
Additional Hardware/Softwa	are Required					
Item:				Cost per unit	Total	
	71077				Cost	
Proposed Enhancements		Cost				
Toposeu Limancements		COST				
						**************************************
Total Enhancement Costs	7					
Total Elliancement Costs						

Instructional Formats and Physical Training Requirements

Course Name: Patient Administration Symposium Course Number: A0416

of Course ing this tructional rmat	Format	Description	Physical Presence Required?		
100%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No		
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No		
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No		
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.			
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?		
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?		
	Student Verbal Presentations	Students present verbal information to the larger group.	?		
	Student Procedural Presentations	Students present procedural information to the larger group.	?		
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?		
	Shop Activity	Hands-on technical tasks/procedures.	?		
	Lab Activity	Hands-on laboratory tasks/procedures.	?		

**Course Information Summary Sheet** 

Course Name: Patient Administration Symposium Course Number: A0416 Length of course - number of hours of instruction: 22.25 Number of Registered Students: 54 Number of potential students that could benefit from this course: 150 Instructional goals of the course: To provide nurse clinicians and middle managers, active duty and civilians with current concepts, trends and issues affecting the delivery of care as the military health care system transitions into the new millennium. The course provides participants with knowledge and information that will enable them to effectively participate in the development of appropriate clinical practices. Frequency of Course Offering: Annual Continuing Education Credit Offered? Yes Number: 26 For each item listed, check ✓ row marked "Check" if observed or documented. Administrative Requirements Check Check Self pacing Detailed student records Group training Test Security On-demand availability Multiple test forms Open entry / open exit Training / Instruction Approach Lecture / Text Learning to Mastery Live Presenters (guest speakers) Practice / drill Self study Structured Review Demonstration Feedback on performance Exhibit Remediation Guided Discussion Group activities/collaborative tasks Simulation (roll play, in-basket) Problem solving exercises **Testing Types** Objective knowledge tests Performance test hardware Essay Oral testing Performance test - "paper" No testing/Student course eval 1 Performance test - hardware Graphics 2D graphics still 3D animation 3D graphics still 2D interactive animation 2D animation 3D interactive animation Pre recorded video /films Communications Audio Open Discussion Indirect discourse Question and answer opportunities Assigned reading

**Course Technology Match Table** 

Course Patient Administration Symposium				chnolog	es	
Administrative Requirements	Check	CBT	WEB	VTT		
Self pacing						
Group training			1. 1.			
On-demand availability						
Open entry / open exit					7710000	
Detailed student records		1		*	77000	
Test Security		286	NAME OF THE OWNER, OWNE			
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	1					
Live Presenters (guest speakers)	1					1
Self study						-
Demonstration						-
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware						+
Problem solving exercises						_
Learning to Mastery						
Practice / drill	1		-	19 (E)		
Structured Review	<del>                                     </del>		-			-
Feedback on performance						
Remediation				- tall		
Group activities/collaborative tasks						-
Testing Types						
Objective knowledge tests						1
Essay						
Performance test "paper" exercise				100		+
Performance test – hardware simulation				100		-
Performance test – hardware		:		1		-
Oral testing		"with a second second				-
No testing/Student course evaluation	1					_
Graphics				1		
2D graphics still	1					1
3D graphics still	<del>                                     </del>					
2D animation	<del> </del>					+
3D animation	-					-
2D interactive animation						-
3D interactive animation				829		
Pre recorded video /films						
Communications	<u> </u>		1			1
Audio	1			1	T	
Indirect discourse						-
Assigned reading						-
Open Discussion						-
Question and answer opportunities		standility for				

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

Course Name: Patient Administration Symposium	Course	lumber: A	0416	
Asynchronous Course	V	VEB Base	ed Traini	na
Interactivity Factors	Level 1	Level 2	Level 3	Level 4
Administrative Requirements				
Self pacing		>>>>>>	>>>>>>	>>>>>
Group training		188 1 6	**	
On-demand availability		>>>>>>	>>>>>>	>>>>>
Open entry / open exit		>>>>>>	>>>>>>	>>>>>
Detailed student records		>>>>>>	>>>>>>	>>>>>
Test Security		>>>>>>	>>>>>>	>>>>>>
Multiple test forms			>>>>>>	>>>>>
Training / Instruction Approach				
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>	>>>>>>	>>>>>>
Demonstration			>>>>>>	>>>>>>
Exhibit			>>>>>>	
Guided Discussion			77777777	>>>>>
Simulation – knowledge based	- 1			
Simulation - hardware	-	1	>>>>>>	>>>>>
	- Van			
Problem solving exercises			>>>>>>	>>>>>
Learning to Mastery Practice / drill		>>>>>>	>>>>>	>>>>>
	1	>>>>>>	>>>>>>	>>>>>
Structured Review	g or a difference of the			>>>>>
Feedback on performance			>>>>>>	>>>>>
Remediation	Fi <sup>re</sup>		>>>>>>	>>>>>
Group activities/collaborative tasks			***	
Testing Types	7		1	
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>>
Essay	2 segments	1.7	47	
Performance test –"paper" exercise			>>>>>>	>>>>>>
Performance test – hardware simulation				
Performance test – hardware	1.5			
Oral testing				
No testing/Student course evaluation	1	>>>>>>	>>>>>>	>>>>>>
Graphics				
2D graphics still	1	>>>>>>	>>>>>>	>>>>>>
3D graphics still			>>>>>>	>>>>>>
2D animation			>>>>>>	>>>>>>
3D animation				>>>>>>
2D interactive animation				>>>>>>
3D interactive animation				
Pre recorded video /films			>>>>>>	>>>>>>
Communications				
Audio		>>>>>>	>>>>>>	>>>>>
Indirect discourse				
Assigned reading		>>>>>>	>>>>>>	>>>>>>
Open Discussion			. "	
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Technology Interactivity Factors** 

Course Name: Patient Administration Symposium	Course N	lumber: A	U <b>4</b> 16			
Asynchronous Course	Computer Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training						
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records						
Test Security						
Multiple test forms			>>>>>>	>>>>>		
Training / Instruction Approach						
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)			1 1 1/2			
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration			>>>>>>	>>>>>		
Exhibit	of market		>>>>>>	>>>>>>		
Guided Discussion	8	1.				
Simulation – knowledge based	2		>>>>>>	>>>>>>		
Simulation - hardware	·					
Problem solving exercises		>>>>>>	>>>>>>	>>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill	1	>>>>>>	>>>>>>	>>>>>		
Structured Review			>>>>>>	>>>>>		
Feedback on performance		>>>>>>	>>>>>>	>>>>>		
Remediation			>>>>>>	>>>>>		
Group activities/collaborative tasks	Palesta Talest					
Testing Types						
Objective knowledge tests	1	>>>>>	>>>>>>	>>>>>>		
Essay			********			
Performance test –"paper" exercise	A Production of the Paris		>>>>>>	>>>>>>		
Performance test – hardware simulation	- É			>>>>>>		
Performance test – hardware				777777		
Oral testing						
No testing/Student course evaluation	1	>>>>>>	>>>>>>	>>>>>>		
Graphics	4			,,,,,,,		
2D graphics still		>>>>>>	>>>>>>			
3D graphics still	<b>V</b>			>>>>>		
2D animation	time.		>>>>>>	>>>>>		
3D animation	4.4		>>>>>>	>>>>>		
2D interactive animation				>>>>>>		
3D interactive animation				>>>>>>		
Pre recorded video /films	ji.		******			
Communications			>>>>>>	>>>>>>		
	I					
Audio		>>>>>>	>>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>>	>>>>>>	>>>>>		
Open Discussion	FR 081 1000 40					
Question and answer opportunities						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

# **Short Worksheet: Development Time**

	Total Trontonious Borolopinone Ini					
Sł	nort Worksheet: Refined Estimate of Dev	elopment	Hours P	er Hour of Instructi	on	
Co	ourse Name: Patient Administration Sympo	sium				
		Media: We	eb Based		Level: 2	
		Analysis	Design	Development	Implementation	Sums
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2	Multiply line 1 by average * hours					
	200			Charles Livering	A STATE OF THE STA	
3	Average hrs. per phase	80.00	40.00	50.00	30.00	3.7 .
4	Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
	Total Labor Hours - sum across line 5		***		1.5	93.00

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Short Worksheet: Development Time**

	Media: CE	3T Multim	edia	Level: 2	
	Analysis	Design	Development	Implementation	Sums
1 Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2 Multiply line 1 by average * hours	č.	1 1	100	and the state of t	
200	1	.".			
3 Average hrs. per phase	80.00	40.00	50.00	30.00	
4 Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30	
5 Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	gril .
Total Labor Hours - sum across line 5			10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and the same of th	93.

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

E	Course Cost Estimation Worksheet: Web Based Training	Jane Care	
Cou	rse Name: Patient Administration Symposium Course Number: A0416		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	\$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	\$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	23
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	16.1
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	\$74,865.00
9.,,	Do not use lines 7 to 12 for any costs that are to be shared.	1	
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	\$0.00
13	Total Cost - Add lines 6 and 12.	\$	\$74,865.00
14	Number of potential students.	\$	150
15	Average Cost Per Student Divide line 13 by line 14	\$	\$499.10

# **Course Cost Estimation Worksheet**

ne i	Course Cost Estimation Worksheet: Computer Based Training		
Со	urse Name: Patient Administration Symposium Symposium		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	\$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	\$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	23
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	16.1
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	\$74,865.00
100	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	*****
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	\$0.00
13	Total Cost - Add lines 6 and 12.	\$	\$74,865.00
14	Number of potential students.	\$	150
15	Average Cost Per Student Divide line 13 by line 14	\$	\$499.10
		•	

# Cost Estimate for a Single Course Over a Five Year Period

Course Name: Patient Administra	osium	Course N	umber: A04	416	
Technology Selected	Level 1	Level 2	Level 3	Level 4	
WBT		X			
CBT					
VTT	Low		High		
Other					77 44 4
Cost Factors		Values		Source	
Labor Hours Year 1		2,069			chnology Match Table, y Interactivity Factors Table
2. Labor Hours Year 2		2,069		1	,
3. Labor Hours Year 3		2,069		1	
4. Labor Hours Year 4		2,069		1	
5. Labor Hours Year 5		2,069		1	
6. Subtotal	-	10,346	<u> </u>		
7. Average Labor Cost per hour		\$50	100 .000		
8. Total labor cost over a 5 year p Multiply line 7 by line 6.	eriod.	\$517,313			
Additional Development Costs	By Year				
9. Cost year 1		\$0		Data to Su	pport Cost Analysis Worksheet
10. Cost year 2		\$0			
11. Cost year 3		\$0			
12. Cost year 4		\$0			
13. Cost year 5		\$0	*****		
<ol> <li>Total additional costs. Sum li and enter on line 14</li> </ol>	nes 9 to 13	\$0			
15. Total Course Cost. Add lines and enter on line 15.	8 and 14	\$517,313			
16. Average cost over 5 years. Divide line 15 by 5 and enter on line 16.		\$103,463			
17. Potential students year 1.		150	W44441.	From Cour	rse Information Summary Sheet
18. Total potential students year 1 to 5 (multiply line 17 by 5 and enter on line 18)		750			, 5,000
		\$690		Round up	to the nearest whole dollar.

# Health Facility Life Cycle Acquisition Conversion Analysis

## JOINT HEALTH FACILITY LIFE CYCLE ACQUISITION

## Course Purpose:

To provide a Tri-Service interactive forum where individuals involved in Facilities Management can inform each other of processes and changes in the professional environment, improve current operations by defining and refining all aspects of our facility life cycle management functions, and play a determining role in the future by establishing a truly collaborative Tri-service work environment.

## Course Content Stability:

## Low to Moderate

While some items are static, the information changes concerning new processes and methods. Reported rates of change varied from 10% to 85% depending on which of seven tracks a student was assigned.

## General Presentation Style:

#### Interactive/Collaborative

The course was primarily small group discussion and problem solving exercises. Approximately 25% of information was delivered to the group in a lecture format.

## Instructional Aids

The majority of the speakers used Power Point slides or a 35mm slide projector to support their presentations. Flip Charts were used throughout to present small group findings to the larger audience.

#### Hands-on Activities:

None

# Degree of Instructional Interaction:

The format of this course emphasized student interaction, so that participants provided the majority of the instruction and reinforcement to each other.

## Relevant Instructional Value:

## E. A. Higher

This course provided a unique environment for instruction. Student interaction took place in a highly structured format, with each student participating in a particular curriculum based on personal requests.

#### Recommendation

## Partial Conversion: Convert Newcomers' Orientation to Web Based Training

The heavy emphasis on student interaction and problem solving exercises in this course makes it, as a whole, a poor candidate for a distance learning medium. However one portion of the course seems appropriate for Web Based Training. The Newcomers' Orientation is a distinct and separate section designed to provide an overview of each phase of the health facilities life cycle process. It is divided into several blocks of instruction that focus on each phase of the process. Its' primary purpose is to provide an understanding of the overall process. Students are pre-selected to attend the Newcomers' Orientation. Each is a newcomer to the Health Facility Planning Process, or a person who may have some experience but has not attended the course. By placing this course on the Web new personnel assigned to Health Facility Planning, regardless of service, will be able to take the course immediately, rather than having to wait for the next conference. While the cost of the course is relatively high, the benefits to the service may outweigh the cost of conversion.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Health Facility Life Of Acquisition: Newcomers' Orientation	Cycle	Co		e Num		A0421	****		
					211				
<ol> <li>Instructional goals of the comedical facility life cycle process.</li> </ol>	ourse: 10 p	provide pa	пісір	ants w	/ith an	overview of	eacn pr	iase of	the
, , , , , , , , , , , , , , , , , , , ,									
2. Frequency of course offering per year:		# 1						Yes	No
3. Current length of course in ho	urs	# 20	7.	Cor	nvert	to DL?		Χ	
4. Number of hours to be conver	ted	# 20	8	. Enh	nance	?			Х
5. Number of registered students	3	# 30							
Number of potential students that									
could benefit from the course		# 50							
9. If item 8 = Yes, Specify									
Technology	Level '	1 Level	2	Leve	el 3	Level 4			
WBT		Х							
CBT									
VTT	Low			High					
Other									
Labor Hours Estimation Metho	d. Chart	V Lan		Cuna	busa				
Labor Hours Estimation Wetho	u. Short_	_A_ LON	<u>y</u>	Sync	nron	ous			
		Cost Dat	ta						
10. Total Cost Year One	•	*******			\$ 65	,100			45.5.5
11. Total Cost Year Two					\$ 32,550				
12. Total Cost Year Three					\$ 32,550				
13. Total Cost Year Four					\$ 32	.550			
<ol><li>14. Total Cost Year Five</li></ol>					\$ 32	,550			
15. Total costs year 1 to 5 (Su	m of lines	s 10 thro	ugh	14)	\$ 19	5,300			
16. Average cost, years 1 to 5 (c	livide valu	e in line 1	15 h	v 5)	\$ 30	,060			
17. Total potential students over			100	y J)	ΨΟΟ	,000			
(multiply the number of pote			6 al	ove)					
by 5.)	mar otago	(11.0111	· ·	3010)	# 2	50			
18. Average cost per potential	student d	over 5 ye	ar						
period.									
(divide the value in line 15 b	in line 1	7)		\$ 78	2				
Addit	ional Har	dware/So	oftw	are R	eauir	ed		-	
Item:						t per unit	Total	Cost	
Proposed Enhancement(s)	Cost								
	\$								
	\$								
	\$								
Total Enhancement Costs	\$								
The second of th	<u>.</u>		-			19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	a lad	1 825 P.	

Instructional Formats and Physical Training Requirements

Course Name:

Health Facility Life Cycle Acquisition
Newcomers' Orientation Track

Course Number:

A0421

of Course ing this structional rmat	Format	Description	Physical Presence Required?		
70%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.			
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No		
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No		
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?		
2.5%	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.			
5%	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?		
10%	Student Verbal Presentations Students present verbal information to the larger group.		?		
(4444	Student Procedural Presentations	Students present procedural information to the larger group.	?		
***************************************	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?		
12.5%	Shop Activity	Hands-on technical tasks/procedures.	?		
	Lab Activity	Hands-on laboratory tasks/procedures.	?		

**Note:** Demonstration and Shop Activities are paper or computer based and can be simulated or performed through Web Based Training

# **Course Information Summary Sheet**

Course Name: Health Facility Life Cycle	Acquisition:	Newcomers' Orientation Track	···
Course Number: A0421			
Length of course - number of hours	of instruc	tion: 20	
Number of Registered Students: 30			
Number of potential students that co	uld benefi	t from this course: 50	
		articipants with an overview of each pha	oo of the
medical facility life cycle process.	provide pa	articipants with an overview of each pha	se oi the
Frequency of Course Offering: Once	e a year		
Continuing Education Credit Offered	? No	Number: N/A	
For each item listed shock / roy	u markad	"Check" if observed or documen	4 a al
Administrative Requirements	Check	Check ii observed or documen	Check
Self pacing	CHECK	Detailed student records	Cilecr
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit		Manapio toot formo	-
Training / Instruction Approach			1
Lecture / Text	Х	Learning to Mastery	
Live Presenters (guest speakers)	<del></del>	Practice / drill	X
Self study		Structured Review	
Demonstration	Х	Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises	Х		
Testing Types		:	
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test –"paper"		No testing/Student course eval	X
Performance test – hardware			
Graphics			<u> </u>
2D graphics still	Х	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	Marie Contract of the
		Pre recorded video /films	Х
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer opportunities	
Assigned reading			1

4. Course Technology Match Table

(Name) Health Facility Life Cycle Acquisition		Technologies					
Newcomers' Orientation Track							
Administrative Requirements	Check	СВТ	WBT	VTT			
Self pacing							
Group training							
On-demand availability				proving.			
Open entry / open exit							
Detailed student records		, g.≅e⊤					
Test Security							
Multiple test forms							
Training / Instruction Approach							
Lecture / Text	Х						
Live Presenters (guest speakers)							
Self study							
Demonstration	Х						
Exhibit							
Guided Discussion							
Simulation – knowledge based							
Simulation - hardware						-	
Problem solving exercises	X						
Learning to Mastery							
Practice / drill	Х						
Structured Review	1				-	_	
Feedback on performance			+	- b/			
Remediation			1	k 2 46.		+	
Group activities/collaborative tasks	-					+	
Testing Types							
Objective knowledge tests					1	_	
Essay						+	
Performance test "paper" exercise				etama.		-	
Performance test – hardware simulation						-	
Performance test – hardware	<del>                                     </del>			- 1	···		
Oral testing		17.80				+	
No testing/Student course evaluation	X					-	
Graphics			1				
2D graphics still	X		T		T	T	
3D graphics still						+	
2D animation	-			-		-	
3D animation			-				
2D interactive animation							
3D interactive animation						+	
Pre recorded video /films	X					-	
Communications		L			1		
Audio			T		T		
Indirect discourse					-	-	
Assigned reading					+		
Open Discussion						-	
Question and answer opportunities		. \$ > ~~~~~~ :				-	

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track	Course Number: A0421						
Asynchronous Course	WEB Based Training						
Interactivity Factors	Level 1	Level 2	Level 3	Level			
Administrative Requirements							
Self pacing		>>>>>>	>>>>>>	>>>>>			
Group training							
On-demand availability		>>>>>>	>>>>>>	>>>>>			
Open entry / open exit		>>>>>>	>>>>>>	>>>>>			
Detailed student records		>>>>>>	>>>>>>	>>>>>			
Test Security		>>>>>>	>>>>>>	>>>>>			
Multiple test forms			>>>>>>	>>>>>			
Training / Instruction Approach							
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>			
Live Presenters (guest speakers)	^	********		,,,,,,,			
Self study		>>>>>	>>>>>>	>>>>>			
Demonstration			>>>>>>	>>>>>			
Exhibit	A. Service	X	>>>>>>	>>>>>			
Guided Discussion			77777777	7777777			
Simulation – knowledge based	- 1		>>>>>				
Simulation - hardware				>>>>>			
Problem solving exercises	£.	V	>>>>>>	>>>>>			
Learning to Mastery		X >>>>>>	>>>>>>				
Practice / drill		>>>>>>	>>>>>>	>>>>>			
Structured Review		7777777	////////	>>>>>			
Feedback on performance	<u> </u>			>>>>>			
Remediation	1		>>>>>>	>>>>>			
Group activities/collaborative tasks			>>>>>	>>>>>			
Testing Types							
Objective knowledge tests	1						
- Control - Cont		>>>>>>	>>>>>	>>>>>			
Essay  Performance test –"paper" exercise	ſ.,						
Performance test – paper exercise  Performance test – hardware simulation	I c		>>>>>	>>>>>			
Performance test – hardware simulation	- 17						
	Ma. SV						
Oral testing							
No testing/Student course evaluation		>>>>>>	>>>>>>	>>>>>			
Graphics 2D graphics still		T 222222	T				
3D graphics still	Х	>>>>>>	>>>>>>	>>>>>			
2D animation			>>>>>>	>>>>>			
3D animation	4 / 1		>>>>>	>>>>>			
2D interactive animation	100			>>>>>			
				>>>>>			
3D interactive animation  Pre recorded video /films	1						
Pre recorded video /films Communications		Х	>>>>>>	>>>>>			
	1						
Audio		>>>>>>	>>>>>>	>>>>>			
Indirect discourse							
Assigned reading		>>>>>>	>>>>>>	>>>>>			
Open Discussion	10. 12	gs: A===+++==+	· ,	F 70			
Question and answer opportunities							

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Technology Interactivity Factors** 

Acquisition: Newcomers' Orientation Track	Commutes Description					
Asynchronous Course	Computer Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training						
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records			62.27			
Test Security			MA. 3			
Multiple test forms	wKi ····scacaCam.		>>>>>>	>>>>>		
Fraining / Instruction Approach						
Lecture / Text	X	>>>>>>	>>>>>	>>>>>		
Live Presenters (guest speakers)						
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration	full and the	X	>>>>>>	>>>>>		
Exhibit			>>>>>>	>>>>>		
Guided Discussion						
Simulation – knowledge based	118000		>>>>>>	>>>>>		
Simulation - hardware						
Problem solving exercises	Х	>>>>>>	>>>>>>	>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill	Х	>>>>>>	>>>>>>	>>>>>		
Structured Review			>>>>>>	>>>>>		
Feedback on performance		>>>>>>	>>>>>>	>>>>>		
Remediation	England that and		>>>>>>	>>>>>		
Group activities/collaborative tasks						
esting Types						
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>		
Essay						
Performance test - "paper" exercise	e skontrov		>>>>>>	>>>>>		
Performance test – hardware simulation	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			>>>>>		
Performance test – hardware	N. R.					
Oral testing	No.					
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>		
Graphics		1	1			
2D graphics still	Х	>>>>>>	>>>>>>	>>>>>		
3D graphics still			>>>>>>	>>>>>		
2D animation	1 25		>>>>>>	>>>>>		
3D animation	- Pa.			>>>>>		
2D interactive animation	45			>>>>>		
3D interactive animation						
Pre recorded video /films		Х	>>>>>>	>>>>>		
Communications						
Audio		>>>>>>	>>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>>	>>>>>>	>>>>>>		
Open Discussion						
Question and answer opportunities	The state of the s					

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Short Worksheet: Development Time** 

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track Media: Web Based Training Level: 2 Analysis Design Development Implementation Sums Percentage of Time Spent by Task Type 1 .40 .20 .25 .15 by Level Multiply line 1 by average \* hours 200 Average hrs. per phase. Multiply line 1 80 40 50 30 by line 2 Adjustments \*\* for hours per phase Use 1.\_ for added .3 .5 .8 .3 time and .\_ for less time Adjusted hrs. per phase. Multiply line 3 24 20 40 9 by line 4 Total Labor Hours -93 sum across line 5

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

**Short Worksheet: Development Time** 

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track Media: Computer Based Training Analysis Design Development Implementation Sums Percentage of Time Spent by Task Type .40 .20 .25 .15 by Level Multiply line 1 by average \* hours 200 Average hrs. per 3 80 40 50 30 phase Adjustments \*\* for hours per phase Use 1. for added .3 .5 .8 .3 time and \_ for less time Adjusted hrs. per phase. Multiply line 3 24 20 40 9 by line 4 Total Labor Hours -93 sum across line 5

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

#### **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet: Web Based Training						
	Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track  Course Number: A0421						
1	Write the sum from Refined Estimates the sum from Refined Estimates are the sum of the s	The state of the s	Hrs. 93				
2	Average hourly labor cost in dollars	S	\$ 50				
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 4650				
4	Actual number of classroom equiva- converted or developed.	alent hours to be	Hrs. 20				
5	Compression: If conversion to asymptotic street asymptotic street asymptotic conversion to asymptotic street asymptotic	Hrs. 14					
6	Multiply line 3 by line 5 if a conver asynchronous delivery <b>OR</b> line 3 b conversion to asynchronous delive on line 6.	\$ 65,100					
	Do not use lines 7 to 12 for an	y costs that are to	be shared.				
7	Infrastructure Costs		\$				
8	Recurring Costs		\$				
9	Delivery Labor Costs		\$				
10	Travel Costs		\$				
11	Miscellaneous Costs		\$				
12	Add line 7 to 12	-	\$				
13	Total Cost - Add lines 6 and 12.		\$ 65,100				
14	Number of potential students		# 50				
15	Average Cost Per Student Divide	\$ 1,302					

#### **Course Cost Estimation Worksheet**

	Course Cost Estimation Worksheet  Course Cost Estimate Worksheet: Computer Based Training						
	Irse Name: Health Facility Life Cycle Sistion: Newcomers' Orientation Track						
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs. 93					
2	Average hourly labor cost in dollars	\$ 50					
3	Multiple line 1 by line 2 and put the results on line	3. \$ 4650					
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs. 20					
5	Compression: If conversion to asynchronous delimination of the first state on line 5. If not a conversion to asynchronous delimination of the first skip line 5.	ults Uro 14					
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery <b>OR</b> line 3 by line 4 if not a conversion to asynchronous delivery. Put the resu on line 6.	lts \$ 65,100					
	Do not use lines 7 to 12 for any costs that are to be shared.						
7	Infrastructure Costs	\$					
8	Recurring Costs	\$					
9	Delivery Labor Costs	\$					
10	Travel Costs	\$					
11	Miscellaneous Costs	\$					
12	Add line 7 to 12	\$					
13	Total Cost - Add lines 6 and 12.	\$ 65,100					
14	Number of potential students	# 50					
15	Average Cost Per Student Divide line 13 by line 1	4 \$ 1,302					

Separate worksheets are needed for each technology. Follow the instructions given on the worksheet.

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Health Facility Life Cycle Acquisition: Newcomers' Orientation Track					urse Numb	er: A0421			
Technology Selected	1.4	Laval 2		Lavela	1 1 4				
reclinology Selected	Leve	1 1	Level 2		Level 3	Level 4			
WBT			Х	-					
CBT				$\top$			:		
VTT	Low			$\top$	High				
Other				T					
							, <u>, , , , , , , , , , , , , , , , , , </u>		
Cost Factors			Values			So	urce		
Labor hours year 1		13	02						
2. Labor hours year 2		6	51		Course T	echnology N	latch Table		
3. Labor hours year 3		6	51		Technolo	gy Interactiv	ity Factors Table		
4. Labor hours year 4			51						
5. Labor hours year 5			51						
6. Subtotal		39							
<ol><li>Average labor cost</li></ol>		\$ 50							
8. Total labor Cost over 5 yr. pe	eriod.	\$ 195,300							
Multiply line 6 by line 7									
Additional Development/ Deliv	ery Co								
9. Cost year 1		\$ -0-			Data to Support Cost Analysis Worksheet				
10. Cost year 2		\$ -0-							
11. Cost year 3		\$ -0-							
12. Cost year 4		\$ -0-					*		
13. Cost year 5		\$	-0-						
14. Total Additional Costs . Sum lines 9 to 13 and enter line 14	on	\$ -0-							
15. Total Course Cost. Add lines 8 and 14 and enter line 15	on	\$ 195,300							
16. Average cost over 5 years.  Divide line 15 by 5 and enter on line 16.			39,060						
17. Potential students year 1		50	)		From Cou	ırse Informa	tion Summary Sheet		
<ol> <li>Total potential students year</li> <li>(multiply line 17 by 5. and enter on line 18)</li> </ol>	l	25	0						
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)			'82		Round up	to the near	est whole dollar		

# AMEDD Worldwide Personnel Management Course Conversion Analysis

#### 1998 AMEDD WORLDWIDE PERSONNEL MGMT. COURSE

#### Course Purpose:

To provide current information regarding personnel policies and instruction in fundamental personnel management technical skills, as well as to accentuate peacetime responsibilities of the unit human resource manager.

#### Course Content Stability:

LOW

Course content constantly changes to reflect automation and innovation changes in the work environment.

#### General Presentation Style:

Legiture

This course could best be described as a "conference". That is, the information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners. There were two panel discussions and three seminars as part of the breakout sessions.

#### Instructional Aids:

Overheads and PowerPoint slides.

#### Hands-on Activities

None

#### Degree of Instructional Interaction:

Question/Answer periods accompanied the lectures and panel discussion. Informational exchanges took place during the seminar.

#### Relevant Instructional Value:

Moderate

This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be accomplished without doing some follow-up work.

#### Recommendation:

#### Convert to Web Based Training

This course is an informational exchange that could effectively be delivered by any distance learning format that supported "one-to-many" communications and allowed for visual aides. The most cost effective mode, and the one recommended is Level 1 Web Based Training. This requires eliminating the panel discussions and the three seminars from conversion. These sessions, which made up less than 9% of the sessions, were neither mandatory nor attended by all participants.

While the students had the opportunity to ask questions after most presentations, the questions, overall, focused on clarification. This type of interaction can be easily handled through Web, or Computer Based Training.

Given the large numbers of presenters and the number of contact hours involved (54), VTT proved to be significantly less cost effective (\$518 per student) as compared to Web Based Training ((\$298 per student).

### **DISTANCE LEARNING CONVERSION REPORT FORM**

Course Name: AMEDD Worldwide Pe	ersonnel		Cours	e Nu	mber:				
Mgmt. Course A0423									
			-						
1. Instructional goals of the cou	i <b>rse:</b> Prov	/ide	e current inf	orma	ation reg	garding perso	onnel po	licies a	nd
Instruction in fundamental personnel m	nanageme	ent	technical sl	cills, a	as well a	as accentuat	e the pe	acetim	е
responsibilities of the unit Human Reso	ource Mar	ıaç	gers.						
2. Frequency of course offering p			oiannual					Yes	No
3. Current length of course in hour			62	7.		ert to DL?		X	
4. Number of hours to be converted	ed		54	8.	Enhar	nce?			Х
5. Number of registered students		#	300						
6. Number of potential students th	at								
could benefit from the course		#	300		4.				
9. If item 8 = Yes, Specify									
Technology	Level 1		Level 2	Le	vel 3	Level 4			
WBT	X							_	
CBT			,						
VTT	Low			Hig	jh		~~~		
Other			***************************************						
<b>Labor Hours Estimation Method:</b>	: Short	X	Long	Syr	chron	ous			
		_							
	(	Co	st Data						
10. Total Cost Year One					\$ 89	.300			
11. Total Cost Year Two	***************************************					\$ 89,300			
12. Total Cost Year Three						\$ 89,300			
13. Total Cost Year Four						\$ 89,300			
!4. Total Cost Year Five					\$ 89				
15. Total costs year 1 to 5 (Sum	of lines	: 1	0 through	14)		\$ 446,500			
	. 0		o um ougn	• • • •	Ψ 44	0,000			
16. Average cost, years 1 to 5 (div	ide value	⊃ ir	n line 15 h	15)	\$ 89	300		0.	
17. Total potential students over a				<del>,                                    </del>	Ψ 03	,500			
(multiply the number of potent				2016	<u> </u>				
by 5.)	iai stuuci	III	(item o ai	JUVE	/ # 1,5	500			
18. Average cost per potential s	tudent o	We	er 5 vear		# 1,0	300			
period.	rauciii o		or o year						
(divide the value in line 15 by	the value	in	line 17)		\$ 29	8			
(divide the value in line to by	THE VALUE	- 11	11110 17)		Ψ20	0			
Additio	nal Hard	łw	are/Softw	are l	Requir	ed			
Additional Hardware/Software Required  Item: Cost per unit   Total Cost									
					003	t per unit	Total	COSt	
Drawaad Fahanaan (c)									
Proposed Enhancement(s)	Cost								
	\$								
	\$					7000			
	\$								
Total Enhancement Costs	\$								

Instructional Formats and Physical Training Requirements

ourse Nar MEDD Wo	<b>me:</b> orldwide Personnel	Mgmt. Course Number: A0423					
of Course sing this structional ormat	Format	Description.	Physical Presence Required?				
92%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No				
4%	A selected group (often selected for their expertise or experience in a give						
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No				
5%	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.					
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?				
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.					
Matelanna and a track	Student Verbal Presentations	Students present verbal information to the larger group.					
	Student Procedural Presentations	Students present procedural information to the larger group.  Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.					
	Field Trip						
	Shop Activity	Hands-on technical tasks/procedures.					
	Lab Activity	Hands-on laboratory tasks/procedures.	?				

**Note:** The following instructional approaches will not be used for determining the Distance Learning Technology, Level of Interactivity, or Cost.

- Panel Discussions made up less than 4% of the course and were not mandatory.
- Seminars (small group discussions) made up less than 5% of the course and were not mandatory.

## **Course Information Summary Sheet**

Course Name: AMEDD Worldwide Pe	ersonnel Ma	mt. Course				
Course Number: A0423						
Length of course - number of hours	of instruct	ion: 62				
		1011. 02				
Number of Registered Students: 300	)					
Number of potential students that co	ould benefit	from this course: 300				
Instructional goals of the course: Pr Instruction in fundamental personnel ma responsibilities of the unit Human Reso	inagement t	echnical skills, as well as accentuate the	cies and peacetime			
Frequency of Course Offering: Bians	nual					
Continuing Education Credit Offered	I? No	Number: N/A				
		Transcri 1471				
For each item listed, check ✓ rov	v marked	"Check" if observed or documen	ted.			
Administrative Requirements	Check		Check			
Self pacing		Detailed student records	Oncor			
Group training		Test Security				
On-demand availability		Multiple test forms				
Open entry / open exit						
Training / Instruction Approach						
Lecture / Text	Х	Learning to Mastery				
Live Presenters (guest speakers)		Practice / drill				
Self study		Structured Review				
Demonstration		Feedback on performance				
Exhibit		Remediation				
Guided Discussion		Group activities/collaborative tasks				
Simulation (roll play, in-basket)						
Problem solving exercises						
Testing Types						
Objective knowledge tests		Performance test hardware				
Essay		Oral testing				
Performance test –"paper"		No testing/Student course eval.	Х			
Performance test – hardware						
Graphics						
2D graphics still	X	3D animation				
3D graphics still	<u> </u>	2D interactive animation				
2D animation		3D interactive animation				
	_	Pre recorded video /films				
Communications		1 To recorded video / iii ii ii				
		Open Discussion				
Audio						
Audio Indirect discourse		Question and answer				

4. Course Technology Match Table

(Name) AMEDD Worldwide Personnel Mgmt. Course			Technologies				
Administrative Requirements	Check	CBT	WBT	VTT	T		
Self pacing							
Group training						-	
On-demand availability							
Open entry / open exit							
Detailed student records				A James			
Test Security						-	
Multiple test forms				-		-	
Training / Instruction Approach				-	-	+	
Lecture / Text	X				-		
Live Presenters (guest speakers)					-	-	
Self study							
Demonstration	<del>                                     </del>						
Exhibit				-			
Guided Discussion	-						
Simulation – knowledge based						-	
Simulation - hardware		The state of the s					
Problem solving exercises							
Learning to Mastery	-						
Practice / drill	-			, Tr. 11. 18			
Structured Review				1		ļ	
Feedback on performance				K B)			
Remediation				R100 \$100			
Group activities/collaborative tasks					N.		
Testing Types			-				
Objective knowledge tests	Т г						
Essay							
Performance test –"paper" exercise							
Performance test – hardware simulation							
Performance test – hardware							
Oral testing							
No testing/Student course evaluation							
Graphics	X						
2D graphics still							
3D graphics still	X						
2D animation							
3D animation							
2D interactive animation							
3D interactive animation				27			
Pre recorded video /films							
communications							
Audio							
Indirect discourse							
Assigned reading							
Open Discussion							
			Mar. 5 m.				
Question and answer opportunities							

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Course Name: AMEDD Worldwide Personnel Mgmt. Course	Course Number: A0423					
Asynchronous Course	V	VEB Base	ed Traini	na		
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training						
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records		>>>>>>	>>>>>>	>>>>>>		
Test Security		>>>>>>	>>>>>>	>>>>>		
Multiple test forms			>>>>>	>>>>>		
Training / Instruction Approach						
Lecture / Text	Χ	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)						
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration			>>>>>>	>>>>>		
Exhibit			>>>>>>	>>>>>		
Guided Discussion	* ***					
Simulation – knowledge based	h pil	-	>>>>>>	>>>>>>		
Simulation - hardware						
Problem solving exercises	. 4		>>>>>>	>>>>>		
Learning to Mastery		>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>>	>>>>>>	>>>>>		
Structured Review				>>>>>		
Feedback on performance			>>>>>	>>>>>		
Remediation	( Jac		>>>>>>	>>>>>		
Group activities/collaborative tasks	40					
Testing Types						
Objective knowledge tests		>>>>>	>>>>>	>>>>>		
Essay						
Performance test –"paper" exercise	FT -mark		>>>>>	>>>>>		
Performance test – hardware simulation	100 100 100					
Performance test – hardware						
Oral testing	Rang					
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>>		
Graphics						
2D graphics still	X	>>>>>>	>>>>>>	>>>>>		
3D graphics still	^		>>>>>	>>>>>		
2D animation	The manage		>>>>>>	>>>>>		
3D animation	# L			>>>>>		
2D interactive animation	v.			>>>>>		
3D interactive animation	F C					
Pre recorded video /films	* 4		>>>>>>	>>>>>		
Communications						
Audio		>>>>>>	>>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>>	>>>>>>	>>>>>		
Open Discussion	the state of					

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: AMEDD Worldwide Personnel Mgmt. Course	Course Number: A0423				
Asynchronous Course	Computer Based Traini				
Interactivity Factors	Level 1	Level 2	Level 3	Level	
Administrative Requirements					
Self pacing		>>>>>>	>>>>>>	>>>>>	
Group training					
On-demand availability		>>>>>>	>>>>>>	>>>>>	
Open entry / open exit		>>>>>>	>>>>>>	>>>>>	
Detailed student records					
Test Security					
Multiple test forms	* *		>>>>>>	>>>>>	
Training / Instruction Approach					
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>	
Live Presenters (guest speakers)		1			
Self study		>>>>>>	>>>>>>	>>>>>	
Demonstration			>>>>>>	>>>>>	
Exhibit	Y a prior resemblement of the S		>>>>>>	>>>>>	
Guided Discussion	7 (0.00)				
Simulation – knowledge based			>>>>>>	>>>>>	
Simulation - hardware					
Problem solving exercises		>>>>>>	>>>>>>	>>>>>	
Learning to Mastery		>>>>>>	>>>>>>	>>>>>	
Practice / drill		>>>>>>	>>>>>	>>>>>	
Structured Review			>>>>>>	>>>>>	
Feedback on performance		>>>>>>	>>>>>	>>>>>	
Remediation			>>>>>>	>>>>>	
Group activities/collaborative tasks	b 0 as 2 207				
Testing Types					
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>>	
Essay					
Performance test - "paper" exercise			>>>>>>	>>>>>>	
Performance test – hardware simulation				>>>>>	
Performance test – hardware					
Oral testing	47.				
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>	
Graphics					
2D graphics still	Х	>>>>>>	>>>>>	>>>>>	
3D graphics still			>>>>>	>>>>>	
2D animation	( .a.,		>>>>>>	>>>>>	
3D animation	r · (			>>>>>	
2D interactive animation	Fred			>>>>>	
3D interactive animation	0 (				
Pre recorded video /films	1		>>>>>>	>>>>>	
Communications				Į	
Audio		>>>>>>	>>>>>	>>>>>	
Indirect discourse					
		>>>>>>	>>>>>>	>>>>>	
	- 1 <sub>10</sub> 2				

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: AMEDD Worldwide Personnel Mgmt. Course	Course Number: A0423					
Synchronous Course	Video Teletraining					
Interactivity Factors	Level 1 Low					
Administrative Requirements						
Self pacing						
Group training		>>>>>>				
On-demand availability						
Open entry / open exit						
Detailed student records						
Test Security		>>>>>>				
Multiple test forms		>>>>>				
Training / Instruction Approach						
Lecture / Text	X	>>>>>				
Live Presenters (guest speakers)		>>>>>>				
Self study						
Demonstration		>>>>>				
Exhibit		>>>>>>				
Guided Discussion						
Simulation – knowledge based		>>>>>				
Simulation - hardware						
Problem solving exercises	the section of					
Learning to Mastery	pri .					
Practice / drill	No.					
Structured Review						
Feedback on performance						
Remediation						
Group activities/collaborative tasks						
Testing Types						
Objective knowledge tests						
Essay						
Performance test –"paper" exercise						
Performance test – hardware simulation	b.					
Performance test – hardware						
Oral testing	A					
No testing/Student course evaluation	Х	>>>>>>				
Graphics	1 7	1				
2D graphics still	Х	>>>>>				
3D graphics still	, , , , , , , , , , , , , , , , , , ,	>>>>>				
2D animation		>>>>>				
3D animation		>>>>>>				
2D interactive animation						
3D interactive animation	Marie Contraction of the Contrac					
Pre recorded video /films		>>>>>>				
Communications						
Audio		>>>>>				
Indirect discourse						
Assigned reading		>>>>>				
Open Discussion						
Question and answer opportunities	and the state of					

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Short Worksheet: Development Time** 

Sh	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction								
- 00	Course Name: AMEDD Worldwide Personnel Mgmt. Course Media: Web Based Training Level: 1  Analysis Design Development Implementation Sums								
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15				
2	Multiply line 1 by average * hours100								
3	Average hrs. per phase	40	20	25	15				
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3				
5	Adjusted hrs. per phase. Multiply line 3 by line 4.	12	10	20	4.5				
	Total Labor Hours - sum across line 5					47			

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

**Short Worksheet: Development Time** 

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: AMEDD Worldwide Personnel Mgmt. Course Media: Computer Based Training Level: 1 Analysis Design Development Implementation Sums Percentage of Time Spent by Task Type .40 .20 .25 .15 by Level Multiply line 1 by yğh Jai Vigit Rij average \* hours 100 Average hrs. per 40 20 25 15 phase Adjustments \*\*

.3

12

for hours per phase Use 1.\_ for added time and .\_ for less

Adjusted hrs. per phase. Multiply line 3

Total Labor Hours -

time

by line 4.

.5

10

.8

20

.3

4.5

47

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

### **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet: Web Based Training						
1	se Name: AMEDD Worldwide onnel Mgmt. Course	Course Number: A0423					
1	Write the sum from Refined Estim estimated number of hrs. per hr. o	•	Hrs. 47				
2	Average hourly labor cost in dollar	"S	\$ 50				
3	Multiple line 1 by line 2 and put the	e results on line 3.	\$ 2350				
4	Actual number of classroom equivonverted or developed.		Hrs. 54				
5	Compression: If conversion to asy multiply line 4 by .7 (seven tenths) on line 5. If not a conversion to as skip line 5	Hrs. 38					
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous delivers on line 6.	\$ 89,300					
	Do not use lines 7 to 12 for any costs that are to be shared.						
7	Infrastructure Costs		\$				
8	Recurring Costs		\$				
9	Delivery Labor Costs		\$				
10	Travel Costs		\$				
11	Miscellaneous Costs		\$				
12	Add line 7 to 12		\$				
13	Total Cost - Add lines 6 and 12.		\$ 89,300				
14	Number of potential students		# 300				
15	Average Cost Per Student Divide	line 13 by line 14	\$ 298				

## **Course Cost Estimation Worksheet**

	Course Cost Estimate Works	heet: Computer Bas	sed Training
	Irse Name: AMEDD Worldwide onnel Mgmt. Course	Course Number: A0423	<u> </u>
1	Write the sum from Refined Estimated number of hrs. per hr. o	ate Worksheet,	Hrs. 47
2	Average hourly labor cost in dollar	S	\$ 50
3	Multiple line 1 by line 2 and put the	e results on line 3.	\$ 2350
4	Actual number of classroom equiva- converted or developed.		Hrs. 54
5	Compression: If conversion to asy multiply line 4 by .7 (seven tenths) on line 5. If not a conversion to asy skip line 5	and put the results	Hrs. 38
6	Multiply line 3 by line 5 if a conver asynchronous delivery <b>OR</b> line 3 b conversion to asynchronous delive on line 6.	y line 4 if not a	\$ 89,300
	Do not use lines 7 to 12 for an	y costs that are to	be shared.
7	Infrastructure Costs		\$
8	Recurring Costs		\$
9	Delivery Labor Costs		\$
10	Travel Costs		\$
11	Miscellaneous Costs		\$
12	Add line 7 to 12		\$
13	Total Cost - Add lines 6 and 12.		\$ 89,300
14	Number of potential students		# 300
15	Average Cost Per Student. Divide	line 13 by line 14	\$ 298

Cost Estimate for a Single Course Over a Five Year Period

Cost Estimate for a Single Course Name: AMEDD Worldwid Mgmt. Course				Course Number: A0423				
Technology Selected	Level	1	Level 2	Level 3	Level 4			
WBT	X							
CBT			1000000					
VTT	Low			High				
Other								
Cost Factors			/alues		Co.	1800		
Labor hours year 1		1786			301	ırce		
2. Labor hours year 2		1786		Course	ochnology M	latah Tahla		
3. Labor hours year 3		1786			echnology M av Interactivi	ity Factors Table		
4. Labor hours year 4		1786		1 60111010	gy iineraciivi	ty ractors rable		
5. Labor hours year 5		1786		_				
6. Subtotal		8930						
7. Average labor cost		\$50	,					
8. Total labor Cost over 5 yr. pe	riod	φου						
Multiply line 6 by line 7	riou.	\$ 446	3,500					
Additional Development/ Deliv	ery Co	ost Ry Vear						
9. Cost year 1	ery Co	\$ -0		Data to S	unnort Cost	Analysis Worksheet		
10. Cost year 2		\$ -0		Data to S	upport Cost	Analysis Worksheet		
11. Cost year 3		\$ -0						
12. Cost year 4		\$ -0						
13. Cost year 5		\$ -0			,			
14. Total Additional Costs .		Ψ -0						
Sum lines 9 to 13 and enter of line 14	on	\$ -0	-					
<ol> <li>Total Course Cost.</li> <li>Add lines 8 and 14 and enter line 15</li> </ol>	on	\$ 44	6,500					
<ol> <li>Average cost over 5 years.</li> <li>Divide line 15 by 5 and enter line 16.</li> </ol>	on	\$ 89	,300					
17. Potential students year 1		300	1000	From Col	ırse Informat	ion Summary Sheet		
<ol> <li>Total potential students year</li> <li>(multiply line 17 by 5. and enter on line 18)</li> </ol>		1500	)			,		
<ol> <li>Average cost per student yr</li> <li>(divide line 15 by line 18 enter on line 19)</li> </ol>		\$ 29	8	Round up to the nearest whole dollar				

## Army Medical Evacuation Conference Conversion Analysis

#### ARMY MEDICAL EVACUATION COURSE

#### Course Purpose

To use the Doctrine, Training, Organization, Leadership, Material format to facilitate an exchange of ideas and help improve the US Army Evacuation System across the operational spectrum.

#### Course Content Stability Moderate

The is a central core of stable information, which is adjusted based on current trends in the AMEDD. In addition, the agenda is adapted based on courses critiques from previous years.

#### General Presentation Style:

#### Interactive/Collaborative

The course was structured with three or four lecture sessions each morning which all participants attended as a group, and a "round robin" format in the afternoon with one-hour small group sessions each repeated four times. All individuals attended one iteration of each of the small "working groups". The purpose of this format was to encourage involvement of participants in discussion and problem solving. For many of these sessions, a knowledgeable senior officer was "seeded" in each group to facilitate discussion and, when needed, provide a historical/doctrinal perspective regarding the issue at hand.

#### Instructional Aids:

The majority (95%) of course instructors used overhead slides or a PowerPoint presentation to assist them. Approximately 50% used handouts to supplement their presentations. There was limited use of video.

#### Hands-on Activities

#### None

#### Degree of Instructional Interaction:

There was a high degree of active participation in the majority of the general sessions with comments, questions, and suggestions regarding the question at hand. The round robin working groups encouraged involvement of participants in discussion and problem-solving.

#### Relevant Instructional Value:

#### Heb

The topics presented addressed the most current issues in the evacuation field, to include recent doctrinal changes, aircraft modernization, battlefield communications, organizational structure and employment, and a review of final drafts of two revised field manuals.

#### Recommendation

#### Prepare pre-course instruction for Distance Learning.

Due to the amount of interaction, and small group discussions during this course, it is not recommended that the entire course be converted to distance learning. Only VTT would be near appropriate. But given the highly interactive nature of the course it would have to be offered six times for the current number of students, with special preparation for each breakout session. However, pre-course materials focusing on the topics to be discussed in the "round robin" sessions (excluding rank specific workshops) would better prepare the students to make valuable contributions, and further facilitate the success of these activities at a very minimal per student cost (\$1.80).

#### **DISTANCE LEARNING CONVERSION REPORT FORM**

Course Name: Army Medical Evacua Conference	ation	Со	urs	e Num	ber: A	N0437			
Instructional goals of the county     Material format to facilitate an exchanacross the operational spectrum.	u <b>rse :</b> To ເ ge of ideas	use the Do and help	ctrir	ne, Tra	aining, he US	Organizatio Army Evacu	n, Leade uation Sy	ership, stem	
2. Frequency of course offering p	er vear	# 1						Yes	No
Current length of course in hour		# 35	7.	Cor	nvert i	to DL?		162	X
Number of hours to be convert		# 0	8.		nance			Х	
5. Number of registered students	cu	# 125	-0.		lance	:			
6. Number of potential students the	nat	77 120	-		**********				
could benefit from the course	iat	# 250							
Codia policii irom the codiae		11 200							
9. If item 8 = Yes, Specify: Ele	ctronic Jo	urnal for	nre	-cour	se ins	truction/pre	enaratio	n	
Technology	Level 1			Leve		Level 4	paratio		
WBT			_		-	20101 4			
CBT									
VTT	Low			High	 I				
Other				11.9.					
Labor Hours Estimation Method	: Short	Long	5	Synch	rono	us			
				<b>J</b>					
	(	Cost Data	1						
10. Total Cost Year One					\$ 45	0	T		
11. Total Cost Year Two					\$ 45				
12. Total Cost Year Three					\$ 45				
13. Total Cost Year Four					\$ 45				
! 4. Total Cost Year Five					\$ 45				
15. Total costs year 1 to 5 (Sur	n of lines	10 throu	gh	14)	\$ 2,2				
16. Average cost, years 1 to 5 (di	vide value	in line 15	5 by	(5)	\$ 45	0			
17. Total potential students over a									
(multiply the number of potential by 5.)	tial studer	nts (item 6	at	oove)	# 12	50			
18. Average cost per potential s	student o	ver 5-yea	r						
period. (divide the value in line 15 by	the value	in line 17	)		\$ 1.8	30			
A 1 P.									
	onal Hard	ware/Soi	twa	are R			-		
Item:					Cos	t per unit	Total	Cost	
Proposed Enhancement(s)	Coot	<del> </del>							
Proposed Enhancement(s)	Cost			_					
Electronic Journal for pre-course instruction/preparation	¢ 2 250	and fine							
пописнопунераганоп		over five	yea	115					
	\$								
Total Enhancement Costs	\$	······································							
Total Enhancement Costs	\$ 2,250 0	over five y	/ea	rs					
									1.7

**Course Information Summary Sheet** 

Course Name: Army Medical Evacuat Course Number: A0437	ion Confere	ence	
	•		
Length of course - number of hours		tion: 35	
Number of Registered Students: 125			
Number of potential students that co	uld benefi	t from this course: 250	
Instructional goals of the course: To Material format to facilitate an exchange System across the operational spectrum	e of ideas a	octrine, Training, Organization, Leaders nd help improve the US Army Evacuati	ship, on
Frequency of Course Offering: Onc	e a year		
Continuing Education Credit Offered	? Yes	Number:	
For each item listed, check ✓ rov		"Check" if observed or documen	ted.
Administrative Requirements	Check		Check
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion	Х	Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	1
Essay		Oral testing	
Performance test -"paper"		No testing/Student course eval.	
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	T
3D graphics still	^	2D interactive animation	
2D animation	-	3D interactive animation	
2D armitation		Pre recorded video /films	V
Communications		The recorded video / IIIIIS	X
Audio		Open Discussion	
Indirect discourse		Question and answer	X
Assigned reading		Question and answer	X
/ losigned reading			
	<u> </u>		

**Course Technology Match Table** 

Course Army Medical Evacuation Conference		Technologies					
Administrative Requirements	Check	CBT	WBT	VTT			
Self pacing							
Group training							
On-demand availability							
Open entry / open exit							
Detailed student records				6433 F + 464			
Test Security		· f aril					
Multiple test forms							
Training / Instruction Approach							
Lecture / Text	Х						
Live Presenters (guest speakers)							
Self study							
Demonstration							
Exhibit							
Guided Discussion	X						
Simulation – knowledge based							
Simulation - hardware							
Problem solving exercises							
Learning to Mastery							
Practice / drill				- 5			
Structured Review				1			
Feedback on performance				r i			
Remediation							
Group activities/collaborative tasks							
Testing Types	-1					-	
Objective knowledge tests					Ι Τ		
Essay							
Performance test –"paper" exercise							
Performance test – hardware simulation				. n			
Performance test – hardware							
Oral testing							
No testing/Student course evaluation	Х						
Graphics							
2D graphics still	Х		T				
3D graphics still							
2D animation							
3D animation							
2D interactive animation							
3D interactive animation				- AL - 11			
Pre recorded video /films	Х						
Communications							
Audio					T		
Indirect discourse							
Assigned reading							
Open Discussion	Х						
Question and answer opportunities	X						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Army Medical Evacuation Conference					r Period urse Numbe	r: A0437	
Technology Selected	Leve	1 1	Level	2	Level 3	Do Not Convert	
WBT				_			X
CBT							
VTT	Low				High		A Million
Other							
Cost Factors			Values			Sou	Irce
1. Labor hours year 1		0					
2. Labor hours year 2		0			Course To	echnology M	atch Table
3. Labor hours year 3		0					ty Factors Table
4. Labor hours year 4		0				99	., . dotoro rabio
5. Labor hours year 5		0			1		
6. Subtotal							
7. Average labor cost		\$5	0				
8. Total labor Cost over 5-yr.	period.						
Multiply line 6 by line 7	poou.	\$ 0	)				
Additional Development/ Del	iverv C	ost By Year		-			
9. Cost year 1			150		Data to S	Analysis Worksheet	
10. Cost year 2			150			apport occi,	Than to the menter
11. Cost year 3			150				
12. Cost year 4		•	150				
13. Cost year 5			150				
14. Total Additional Costs.		-					Market Company of the
Sum lines 9 to 13 and ente line 14	r on	\$ 2,250					
15. Total Course Cost. Add lines 8 and 14 and ent line 15	er on	\$ 2	2,250	4			
<ol> <li>Average cost over 5 years.</li> <li>Divide line 15 by 5 and entering 16.</li> </ol>		\$ 4	150				
17. Potential students year 1		25	50		From Cou	ırse Informat	ion Summary Sheet
18. Total potential students yea 5 (multiply line 17 by 5. ar enter on line 18)	nd	12	50				
<ul><li>19. Average cost per student</li><li>5. (divide line 15 by line enter on line 19)</li></ul>		\$ 1	1.80				

U.S. Army Health Care Logistics Conference Conversion Analysis

#### US ARMY HEALTH CARE LOGISTICS

#### Course Purpose:

The training of medical logistics professionals to enhance medical readiness overall and the efficient support provisions of medical logistics to the Army health care system. To train Army medical logisticians to be successful in a highly complex and sophisticated environment which spans the medical support of a Force Projection Army to the unique mix of military and private sector logistics practices necessary to support today's Military Health System. To provide a forum for junior officers to gain considerable insight into the numerous professional opportunities afforded them in the medical logistics field.

#### Course Content Stability:

Moderate

Approximately 60% of the course content changes yearly.

#### General Presentation Style:

Distributive

The information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners.

#### Instructional Aids:

Presentations were supported by slides, overheads, Power Point presentations, and some video

#### Hands-on Activities:

None

#### Degree of Instructional Interaction:

Question and answer periods followed each of the lectures. These were informational exchanges. In addition, there was a high level of informational exchange during the poster session. These exchanges had high instructional value in that they were directly tied to the course goal of improving research skills.

#### Relevant Instructional Value:

High

The majority of presentations were focused directly on the needs of health care logisticians or provided needed general background.

#### Recommendation:

#### Convert to Web-Based Training.

The US Army Health care Logistics Conference was a large conference with 450+ registered attendees and 55 presenters. The majority of breakout sessions were offered twice to allow participants to attend each presentation without conflicting with other presentations. Excluding strictly conference related activities the course contained 50 hours of instruction, 13 hours in the plenary sessions and 33 hours in breakout sessions. Because of the large number of presenters, VTT would prove expensive as well as extremely difficult to organize and manage. Web Based Training is an ideal conversion medium for this course. The use of WBT or CBT would require significant effort to reorganize the content into logical blocks. While the number of potential participants is very near actual participants (500 to 450), potential cost savings and increased flexibility would make this conversion attractive.

#### DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: US Army Health Care	Logistics	Co	urs	e Number	: A0438		
1. Instructional goals of the course readiness overall and the efficient supp To train Army medical logisticians to be which spans the medical support of a F sector logistics practices necessary to junior officers to gain considerable insign the medical logistics field.	oort provise successforce Proje support to	ions of me ful in a high ection Arm day's Milit e numerou	dica nly d ny to ary	al logistics complex are the uniqu Health Sys	to the Army had sophisticate mix of militates tem. To prove	ealth care syste ed environment iry and private vide a forum for	em.
<ol><li>Frequency of course offering per</li></ol>	er year:	# 1				Yes	No
<ol><li>Current length of course in hour</li></ol>	S	# 50	7.	Conver	t to DL?	Х	
<ol><li>Number of hours to be converted</li></ol>	d	# 50	8.	Enhand	e?		Х
<ol><li>Number of registered students</li></ol>		# 450					
6. Number of potential students the	at						
could benefit from the course		# 500					
							1
9. If item 8 = Yes, Specify:							
Technology	Level 1	Level	2	Level 3	Level 4		
WBT		Х					
CBT							
VTT	Low			High			
Other		T					
<b>Labor Hours Estimation Method:</b>	Short 2	K Long		Synchro	nous		
		.= · · ·			and the same		
	(	ost Data	1				
10. Total Cost Year One				\$ 1	62,750		***************************************
11. Total Cost Year Two					7,650		
12. Total Cost Year Three		* *			7,650		
13. Total Cost Year Four					7,650		
! 4. Total Cost Year Five		***************************************			7,650		
15. Total costs year 1 to 5 (Sum	of lines	10 throu	ıqh		553,350		
			<u> </u>		,		
16. Average cost, years 1 to 5 (div	ide value	in line 1	5 by	/5) \$1	10,670		
17. Total potential students over a	five-year	period.		· · · · ·			
(multiply the number of potenti			ab	oove)			
by 5.)		`		# 2	2500		
18. Average cost per potential s	tudent o	ver 5-yea	ır				
period.		_					
(divide the value in line 15 by t	he value	in line 17	)	\$ 2	222		
	nal Hard	ware/So	tw	are Requ	ired		
Item:				Co	st per unit	<b>Total Cost</b>	
Proposed Enhancement(s)	Cost					1	
	\$						
	\$						
	\$						
Total Enhancement Costs	\$						
Company of the country of the countr	Ψ .						

**Instructional Formats and Physical Training Requirements** 

Course Name: US Army Health Care Logistics Course Number: A0438

of Course sing this structional ormat	Format	Description	Physical Presence Required?
91%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
3%	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
6%	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
hhib))))//**	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
	Lab Activity	Hands-on laboratory tasks/procedures.	?

Panel Discussions and Group discussions Comprised less than 9% of the conference and were also conducted as breakout sessions, and therefore not required for all students. Because these sessions were not required of all students they will not be considered critical factors for the remainder of the conversion analysis.

#### **Course Information Summary Sheet**

Course Name: US Army Health Care Logistics

Course Number: A0438

Length of course - number of hours of instruction:

Number of Registered Students: 450

Number of potential students that could benefit from this course: 500

Instructional goals of the course: The training of medical logistics professionals to enhance medical readiness overall and the efficient support provisions of medical logistics to the Army health care system. To train Army medical logisticians to be successful in a highly complex and sophisticated environment which spans the medical support of a Force Projection Army to the unique mix of military and private sector logistics practices necessary to support today's Military Health System. To provide a forum for junior officers to gain considerable insight into the numerous professional opportunities afforded them in the medical logistics field.

Frequency of Course Offering: Once a Year

Continuing Education Credit Offered? None

Number: N/A

Administrative Requirements	Check		Chec
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit		·	
Training / Instruction Approach			
Lecture / Text	X	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit		Remediation	
Guided Discussion		Group activities/collaborative tasks	
Simulation (roll play, in-basket)		·	
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test – "paper"		No testing/Student course eval.	X
Performance test – hardware			
Graphics			.]
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	Х
Communications			
Audio		Open Discussion	
Indirect discourse		Question and answer	
Assigned reading			

Course Technology Match Table

Course			Te	echnolog	ies	
(Name) US Army Health Care Logistics	Charle	CDT		_	T	
Administrative Requirements	Check	СВТ	WBT	VTT		
Self pacing						_
Group training	-					
On-demand availability				(n. 27 Juny 193)		
Open entry / open exit  Detailed student records						_
Test Security						
Multiple test forms						ļ
Training / Instruction Approach  Lecture / Text						
	X					
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit						
Guided Discussion						
Simulation – knowledge based						
Simulation - hardware				.,		
Problem solving exercises						
Learning to Mastery				11		
Practice / drill						
Structured Review	11111111			1 12 -		
Feedback on performance				184		
Remediation						
Group activities/collaborative tasks						
Testing Types				.,	1	,
Objective knowledge tests						
Essay			7 -	, Fig. F		
Performance test –"paper" exercise						
Performance test – hardware simulation						
Performance test – hardware		retu				
Oral testing						
No testing/Student course evaluation	X					
Graphics	-					
2D graphics still	X					
3D graphics still						
2D animation						
3D animation						
2D interactive animation				71.44		
3D interactive animation						
Pre recorded video /films	X					
Communications	· · · · · · · · · · · · · · · · · · ·					,
Audio						
Indirect discourse			1.00			
Assigned reading						
Open Discussion		a Autor de				
Question and answer opportunities		1				

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Course Name: US Army Health Care Logistics	Course N	lumber: A	J438		
Asynchronous Course	V	VEB Base	ed Traini	ng	
Interactivity Factors	Level 1	Level 2	Level 3	Level 4	
Administrative Requirements					
Self pacing		>>>>>>	>>>>>>	>>>>>	
Group training					
On-demand availability		>>>>>>	>>>>>>	>>>>>	
Open entry / open exit		>>>>>>	>>>>>>	>>>>>	
Detailed student records		>>>>>>	>>>>>>	>>>>>	
Test Security		>>>>>>	>>>>>>	>>>>>	
Multiple test forms			>>>>>>	>>>>>	
Training / Instruction Approach					
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>	
Live Presenters (guest speakers)	X				
Self study		>>>>>>	>>>>>>	>>>>>	
Demonstration			>>>>>	>>>>>	
Exhibit	A secondary		>>>>>	>>>>>	
Guided Discussion	e de la companya de				
Simulation – knowledge based	part Mills		>>>>>>	>>>>>	
Simulation - hardware					
Problem solving exercises	2		>>>>>	>>>>>	
Learning to Mastery		>>>>>>	>>>>>>	>>>>>	
Practice / drill		>>>>>	>>>>>>	>>>>>	
Structured Review				>>>>>	
Feedback on performance	To - 25 ***		>>>>>	>>>>>	
Remediation			>>>>>	>>>>>	
Group activities/collaborative tasks		A second			
Testing Types	1.5				
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>	
Essay					
Performance test –"paper" exercise			>>>>>>	>>>>>>	
Performance test – hardware simulation					
Performance test – hardware					
Oral testing	To the second				
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>>	
Graphics	^				
2D graphics still	Х	>>>>>	>>>>>	>>>>>	
3D graphics still	^		>>>>>	>>>>>	
2D animation	Gare, Igenses		>>>>>>	>>>>>	
3D animation				>>>>>	
2D interactive animation				>>>>>	
3D interactive animation	E				
Pre recorded video /films	L	Х	>>>>>>	>>>>>	
Communications					
Audio		>>>>>>	>>>>>	>>>>>	
Indirect discourse					
Assigned reading		>>>>>>	>>>>>>	>>>>>	
Open Discussion	from Desired				
Question and answer opportunities					

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: US Army Health Care Logistics  Course Number: A0438							
Asynchronous Course	Computer Based Training						
Interactivity Factors	Level 1	Level 2	Level 3	Level 4			
Administrative Requirements							
Self pacing		>>>>>>	>>>>>>	>>>>>			
Group training				- 1.0			
On-demand availability		>>>>>>	>>>>>>	>>>>>>			
Open entry / open exit		>>>>>>	>>>>>	>>>>>			
Detailed student records			Acces on the second section				
Test Security	110 17 30 3						
Multiple test forms	V		>>>>>>	>>>>>			
Training / Instruction Approach							
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>			
Live Presenters (guest speakers)	11.						
Self study		>>>>>>	>>>>>>	>>>>>			
Demonstration			>>>>>>	>>>>>>			
Exhibit	S. Marine		>>>>>>	>>>>>			
Guided Discussion							
Simulation – knowledge based	30		>>>>>>	>>>>>			
Simulation - hardware		14.					
Problem solving exercises		>>>>>>	>>>>>>	>>>>>			
Learning to Mastery		>>>>>	>>>>>>	>>>>>			
Practice / drill							
		>>>>>>	>>>>>>	>>>>>			
Structured Review			>>>>>>	>>>>>			
Feedback on performance		>>>>>	>>>>>>	>>>>>			
Remediation	41 5 Jan 2002		>>>>>	>>>>>			
Group activities/collaborative tasks							
Testing Types	·						
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>			
Essay	grants J.J. J.						
Performance test -"paper" exercise			>>>>>	>>>>>			
Performance test – hardware simulation				>>>>>			
Performance test hardware	1 Commence						
Oral testing							
No testing/Student course evaluation	X	>>>>>>	>>>>>>	>>>>>			
Graphics							
2D graphics still	X	>>>>>>	>>>>>	>>>>>			
3D graphics still	S. Emission		>>>>>>	>>>>>			
2D animation			>>>>>	>>>>>			
3D animation		gree .		>>>>>			
2D interactive animation	*			>>>>>			
3D interactive animation							
Pre recorded video /films	,,3°	X	>>>>>>	>>>>>			
Communications							
Audio		>>>>>>	>>>>>>	>>>>>			
Indirect discourse							
Assigned reading		>>>>>>	>>>>>>	>>>>>			
Open Discussion							
Question and answer opportunities	Programment of						

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: US Army Health Care Logistics	Course Number: A0438		
Synchronous Course	Video Te	eletraining	
Interactivity Factors	Level 1 Low	Level 2 High	
Administrative Requirements			
Self pacing			
Group training		>>>>>	
On-demand availability			
Open entry / open exit	I was to see the		
Detailed student records	*		
Test Security		>>>>>>	
Multiple test forms		>>>>>>	
Training / Instruction Approach			
Lecture / Text	X	>>>>>>	
Live Presenters (guest speakers)	^	>>>>>>	
Self study			
Demonstration		>>>>>>	
Exhibit		>>>>>>	
Guided Discussion			
Simulation – knowledge based		>>>>>>	
Simulation - knowledge based		77777777	
Problem solving exercises	The second second second		
Learning to Mastery			
Practice / drill			
Structured Review			
Feedback on performance  Remediation			
Group activities/collaborative tasks		L	
Testing Types			
Objective knowledge tests	Mary and the first own		
Essay			
Performance test –"paper" exercise	1 1		
Performance test – hardware simulation			
Performance test – hardware	<u> </u>		
Oral testing			
No testing/Student course evaluation	X	>>>>>	
Graphics			
2D graphics still	X	>>>>>>	
3D graphics still		>>>>>	
2D animation		>>>>>>	
3D animation		>>>>>>	
2D interactive animation	Commence of the party of the Commence of the party of the Commence of the Comm		
3D interactive animation			
Pre recorded video /films	Х	>>>>>	
Communications			
Audio		>>>>>	
Indirect discourse			
Assigned reading		>>>>>>	
Open Discussion	I was a second and the second		
Question and answer opportunities			

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Short Worksheet: Development Time** 

	Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: US Army Health Care Logistics Media: WEB Based Training Level: 2							
	Tando Italiano. Go / amy in	Analysis	Design	Development		Sums	
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15		
2	Multiply line 1 by average * hours200					1 (1895)	
3	Average hrs. per phase	80	40	50	30		
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3		
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	24	20	40	9		
	Total Labor Hours - sum across line 5					93	

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

**Short Worksheet: Development Time** 

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction						
Course Name: US Army Health Care Logistics Media: Computer Based Training Level: 2  Analysis Design Development Implementation Sums						
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15	
2	Multiply line 1 by average * hours		Pet general control of the control o			
3	Average hrs. per phase	80	40	50	30	i gastata Otto
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3	
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	24	20	40	9	
	Total Labor Hours - sum across line 5				- 100 mm	93

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

#### **Course Cost Estimation Worksheet**

Course Cost Estimation Worksheet: Web Based Training						
	Course Name: US Army Health Care Course Number: A0438 Logistics					
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.		Hrs. 93			
2	Average hourly labor cost in dollars		\$ 50			
3	Multiple line 1 by line 2 and put the	e results on line 3.	\$ 4650			
4	Actual number of classroom equivalent hours to be converted or developed.		Hrs. 50			
5	Compression: If conversions to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5		Hrs. 35			
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous deliver on line 6.	\$ 162,750				
	Do not use lines 7 to 12 for any costs that are to be shared.					
7	Infrastructure Costs		\$			
8	Recurring Costs		\$			
9	Delivery Labor Costs		\$			
10	Travel Costs		\$			
11	Miscellaneous Costs		\$			
12	Add line 7 to 12		\$			
13	Total Cost - Add lines 6 and 12.		\$ 162,750			
14	Number of potential students		# 500			
15	Average Cost Per Student Divide line 13 by line 14 \$ 326		\$ 326			

### Course Cost Estimation Worksheet

Course Cost Estimate Worksheet: Computer Based Training					
Cou Logist	rse Name: US Army Health Care ics	Course Number: /	A0438		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.		Hrs. 93		
2	Average hourly labor cost in dollars		\$ 50		
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 4650		
4	Actual number of classroom equiva- converted or developed.	alent hours to be	Hrs. 50		
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5		Hrs. 35		
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery <b>OR</b> line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.		\$ 162,750		
Do not use lines 7 to 12 for any costs that are to be shared.					
7	Infrastructure Costs		\$		
8	Recurring Costs		\$		
9	Delivery Labor Costs		\$		
10	Travel Costs		\$		
11	Miscellaneous Costs		\$		
12	Add line 7 to 12		\$		
13	Total Cost - Add lines 6 and 12.		\$ 162,750		
14	Number of potential students		# 500		
15	Average Cost Per Student Divide line 13 by line 14		\$ 326		

Cost Estimate for a Single Course Over a Five Year Period

Course Name: US Army Health	n Care Lo	ourse Numb	per: A0438			
Technology Selected	Leve	11	Level 2	Level 3	Level 4	
WBT			Х			
CBT						
VTT	Low			High		
Other						
Cost Factors			Values		So	urce
I. Labor hours year 1		32			30	uice
2. Labor hours year 2		19		Course T	echnology N	Natch Table
B. Labor hours year 3		19:				vity Factors Table
Labor hours year 4		19:		- 1001111010	gy micraciiv	nty ractors rable
5. Labor hours year 5		19		$\dashv$		
6. Subtotal						
7. Average labor cost		11,067 \$50				
B. Total labor Cost over 5-yr.	neriod					
Multiply line 6 by line 7	penou.	\$ 553,350				
Additional Development/ Del	ivery Co	net	Ry Vear			
9. Cost year 1	ivoly o	\$ 0		Data to S	Support Cost	Analysis Worksheet
I0. Cost year 2		\$ 0			парроп осе	7 inary ord TV or Korroot
11. Cost year 3		\$ 0				
12. Cost year 4		\$ 0				
13. Cost year 5		\$ 0				
14. Total Additional Costs.						
Sum lines 9 to 13 and ente	r on	\$0				
line 14						
15. Total Course Cost.						
Add lines 8 and 14 and ent	er on	\$ 5	553,350			
line 15						
16. Average cost over 5 years.						
Divide line 15 by 5 and ent		\$ 1	10,670			
line 16.						
17. Potential students year 1		50	00	From Co.	urse Informa	ntion Summary Sheet
18. Total potential students yea						, , , , , , , , , , , , , , , , , , , ,
5 (multiply line 17 by 5. ar	nd	25	00			
enter on line 18)						
19. Average cost per student						
5. (divide line 15 by line	18 and	\$ 2	222	Round up	to the near	est whole dollar
enter on line 19)						

**NOTE:** 40% of the course content does not change from year to year. Estimated labor hours for years 2 to 5 are adjusted for this factor.

# Phyllis J. Verhonick Research Course Conversion Analysis

### PHYLLIS J. VERHONICK RESEARCH COURSE

## Course Purpose:

- To provide Army Nurse Corps Officers, other military officers, and civilian nurses engaged in multidisciplinary and/or collaborative research with a course of instruction to nurture the generation, dissemination, and use of research to continuously improve clinical practice.
- > To provide a vehicle for those with intermediate or advanced research skills to exchange information on research theory, methodology, and funding, as well as to present study findings.

### Course Content Stability

Low

Invited speakers address topics relevant to general research topics (ethics, outcomes issues, etc.), while completed research abstracts change to reflect the latest research.

#### General Presentation Style:

Distributive

The information was delivered using a lecture format as the primary vehicle in which one instructor presenters information to many learners. There was a poster session as well in which presented stood by exhibits of their research, and were available to answer questions to those who attended.

#### Instructional Aids:

Presenters were supported by PowerPoint slides that were projected either from a 35mm slide projector, or directly from a computer. One speaker used a brief videotape to support the lecture.

#### Hands-on Activities:

None

#### Degree of Instructional Interaction:

Question and answer periods followed each of the lectures. These were informational exchanges. In addition, there was a high level of informational exchange during the poster session. These exchanges had high instructional value in that they were directly tied to the course goal of improving research skills.

#### Relevant Instructional Value:

High

The course content was clearly focused, and presented the students with serious issues relevant to research at a general level, as well as several examples of on-going and recently completed research. The instructional approach allowed the research results to be viewed not only in terms of their intrinsic value to the nursing profession, but also within the parameters of the *mechanics* of research.

#### Recommendation

# Convert to Web-Based Training.

The instructional value of this course, although presently high, would benefit from delivery on a distance learning technology that allowed for one-to-many communications, and an asynchronous delivery. Web based training was identified as the most cost effective means given the number of presenters and potential students, supplemented by an electronic bulletin board for the benefit of student presenters.

While a Web based training program would be of benefit to the 3400 potential participants, the student presenters, who would become submitters in a Web based training environment, would receive little benefit. To assure that the student submitters receive the type of feedback that would benefit their research, a Web Based "bulletin board" can be established for student presenters through one of the numerous web sites maintained by the Army.

A drawback to an electronic bulletin board is that it can be very time consuming to those having to answer numerous questions, over an extended period of time. Since Web based training will allow participants to sign-in at any time, a bulletin board used as an integral part of the course, would require that submitters, whether or not students, answer questions in a timely manner throughout the life of the course. This would be a significant added responsibility that many individuals, military or civilian, may not be willing or able to assume.

Given the potential number of users, and that student presenters have other responsibilities, student presenters should be free to determine their own level of participation on the bulletin board. Participation in the bulletin board should be voluntary and not considered a required portion of the course.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Phyllis J. Verhonick Re Course	esearch	Cou	ırs	Number	r: A0513		
Course							
1. Instructional goals of the counand civilian nurses engaged in multidist to nurture the generation, dissemination To provide a vehicle for those with interesearch theory, methodology, and fundamental to the country of the country	ciplinary a n, and use rmediate c	nd/or colla of resear r advance	bor ch t	ative rese to continu	earch with a co ously improve kills to exchang	urse of instruction	on
2. Erequency of source offering no		4 4					A.L.
<ol> <li>Frequency of course offering per</li> <li>Current length of course in hour</li> </ol>	,	# 1 # 26	7.	Convo	rt to DL?	Yes	No
Number of hours to be converte		# 20 # 26	8.			X	
5. Number of registered students		# 100	-				
6. Number of potential students that							
could benefit from the course		# 3400					
9. If item 8 = Yes, Specify: Esta							
Technology WBT	Level 1	Level	2	Level :	3 Level 4		
CBT	Α						
VTT	Low			High			
Other	2011			riigii			
<b>Labor Hours Estimation Method:</b>	Short_>	_ Long		Synchr	onous		
	C	ost Data	1				
10. Total Cost Year One					42,770		
11. Total Cost Year Two					42,770		
12. Total Cost Year Three					42,770		
13. Total Cost Year Four  ! 4. Total Cost Year Five					42,770		
15. Total costs year 1 to 5 (Sum	of lines	10 throu	ah		42,770 <b>213,850</b>		
To. Total costs year 1 to 5 (Suill	OI IIIIes	io unou	gn	14) φ	213,030		
16. Average cost, years 1 to 5 (div	ide value	in line 15	5 by	(5) \$	42,770		
17. Total potential students over a				ν ψ	.2,770		
(multiply the number of potenti	al studen	ts (item 6	ak	oove)			
by 5.)				#	17,000		
18. Average cost per potential s	tudent ov	er 5-yea	r				
period.	la a 1	· · · · · · · · · · · · ·	`		10.50		
(divide the value in line 15 by t	ne value	in line 17	)	\$	12.58		
Additio	nal Hard	ware/Sof	tva/	are Regu	uirod		
Item:	iiai iiaiu	wai e/Joi	LVV		ost per unit	Total Cost	
					oot per unit	Total oost	
Proposed Enhancement(s)	Cost						
pessa z.manomondo)	\$						
	\$						
	\$						
Total Enhancement Costs	\$						
	·						

**Instructional Formats and Physical Training Requirements** 

Course Name: Phyllis J. Verhonick Research Course Number: A0513

Course

of Course ing this structional rmat	Format	Description	Physical Presence Required?				
88%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.					
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No				
7%	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.					
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?				
5%	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.					
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.					
	Student Verbal Presentations	Students present verbal information to the larger group.	?				
	Student Procedural Presentations	Students present procedural information to the larger group.	?				
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?				
	Shop Activity	Hands-on technical tasks/procedures.	?				
	Lab Activity	Hands-on laboratory tasks/procedures.	?				

# **Course Information Summary Sheet**

Course Name: Phyllis J. Verhonick Research Course

Course Number: A0513

Length of course - number of hours of instruction: 26

Number of Registered Students: 100

Number of potential students that could benefit from this course: 3400

**Instructional goals of the course:** To provide Army Nurse Corps Officers, other military officers, and civilian nurses engaged in multidisciplinary and/or collaborative research with a course of instruction to nurture the generation, dissemination, and use of research to continuously improve clinical practice.

To provide a vehicle for those with intermediate or advanced research skills to exchange information on research theory, methodology, and funding, as well as to present study findings.

Frequency of Course Offering: Biannually

Continuing Education Credit Offered? Yes Number: 29.4

### For each item listed, check ✓ row marked "Check" if observed or documented.

Administrative Requirements	Check		Chec
Self pacing		Detailed student records	
Group training		Test Security	
On-demand availability		Multiple test forms	
Open entry / open exit			
Training / Instruction Approach			
Lecture / Text	Х	Learning to Mastery	
Live Presenters (guest speakers)		Practice / drill	
Self study		Structured Review	
Demonstration		Feedback on performance	
Exhibit	X	Remediation	
Guided Discussion	X	Group activities/collaborative tasks	
Simulation (roll play, in-basket)			
Problem solving exercises			
Testing Types			
Objective knowledge tests		Performance test hardware	
Essay		Oral testing	
Performance test "paper"		No testing/Student course eval.	Х
Performance test – hardware			
Graphics			
2D graphics still	X	3D animation	
3D graphics still		2D interactive animation	
2D animation		3D interactive animation	
		Pre recorded video /films	
Communications			
Audio		Open Discussion	T
Indirect discourse		Question and answer	
manect discourse			-

**Note:** In order to provide student submitters with a level of interactivity comparable to the poster session and feedback possible after verbal presentations, an electronic bulletin board is proposed. Therefore factors related to group discussion (open discussion) or poster sessions (question and answer) will not be considered as limiting factors in the selection of a technology.

Video uses for portion of one presentation (>5%), not considered in the selection of a technology.

**Course Technology Match Table** 

Course Phyllis J. Verhonick Research Co	Technologies					
Administrative Requirements	Check	CBT	WBT	VTT		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit						
Detailed student records				9		
Test Security		( Fr. 2/4)				
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	Х				1	
Live Presenters (guest speakers)						
Self study						
Demonstration						
Exhibit	X					1
Guided Discussion	X				1	<del> </del>
Simulation – knowledge based					1	-
Simulation - hardware						1
Problem solving exercises						<u> </u>
Learning to Mastery						
Practice / drill				\$(*)		+
Structured Review	-					-
Feedback on performance				-	<del></del>	-
Remediation						
Group activities/collaborative tasks						-
Testing Types	1					
Objective knowledge tests						
Essay						
Performance test "paper" exercise				- Ma		-
Performance test – hardware simulation						
Performance test – hardware				- 1 A		+
Oral testing		45°5250 m				
No testing/Student course evaluation	Х					
Graphics						_L
2D graphics still	X					Т
3D graphics still	<del>                                     </del>				1	<del>                                     </del>
2D animation						<b>-</b>
3D animation			-			
2D interactive animation						+
3D interactive animation	1			p#1-		+
Pre recorded video /films						+
Communications		1		-1		1
Audio						
Indirect discourse					1	+
Assigned reading						1
Open Discussion						+
Question and answer opportunities	-	(Comment)				+

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

<b>Course Name:</b> Phyllis J. Verhonick Research Course	Course Number: A0513						
Asynchronous Course	WEB Based Training						
Interactivity Factors	Level 1	Level 2	Level 3	Level 4			
Administrative Requirements							
Self pacing		>>>>>>	>>>>>>	>>>>>			
Group training							
On-demand availability		>>>>>>	>>>>>>	>>>>>			
Open entry / open exit		>>>>>>	>>>>>>	>>>>>			
Detailed student records		>>>>>>	>>>>>>	>>>>>			
Test Security		>>>>>>	>>>>>>	>>>>>			
Multiple test forms			>>>>>>	>>>>>			
Training / Instruction Approach							
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>			
Live Presenters (guest speakers)		Total Land	12	1			
Self study		>>>>>>	>>>>>>	>>>>>			
Demonstration	9		>>>>>>	>>>>>			
Exhibit	- The state of	Х	>>>>>>	>>>>>			
Guided Discussion		X					
Simulation – knowledge based	Para la		>>>>>>	>>>>>			
Simulation - hardware	<b>3</b>						
Problem solving exercises	Par.		>>>>>>	>>>>>			
Learning to Mastery		>>>>>	>>>>>>	>>>>>			
Practice / drill		>>>>>>	>>>>>>	>>>>>			
Structured Review				>>>>>			
Feedback on performance	the state of the second		>>>>>>	>>>>>			
Remediation	- 4		>>>>>>	>>>>>			
Group activities/collaborative tasks							
Testing Types							
Objective knowledge tests	T	>>>>>>	>>>>>>	>>>>>			
Essay							
Performance test –"paper" exercise	A Delivery of the Control of the Con		>>>>>>	>>>>>			
Performance test – hardware simulation	P						
Performance test – hardware							
Oral testing	(*						
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>>			
Graphics							
2D graphics still	Х	>>>>>>	>>>>>	>>>>>			
3D graphics still	^		>>>>>>	>>>>>			
2D animation			>>>>>	>>>>>			
3D animation	-	1000		>>>>>			
2D interactive animation				>>>>>			
3D interactive animation							
Pre recorded video /films		,	>>>>>>	>>>>>			
Communications							
Audio		>>>>>>	>>>>>	>>>>>			
Indirect discourse							
Assigned reading		>>>>>>	>>>>>>	>>>>>			
Open Discussion	gramma and						
Question and answer opportunities							

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: Phyllis J. Verhonick Research Course	Course Number: A0513						
Asynchronous Course	Computer Based Training						
Interactivity Factors	Level 1	Level 2	Level 3	Level 4			
Administrative Requirements							
Self pacing		>>>>>>	>>>>>>	>>>>>			
Group training							
On-demand availability		>>>>>>	>>>>>>	>>>>>			
Open entry / open exit		>>>>>>	>>>>>>	>>>>>			
Detailed student records							
Test Security	r'						
Multiple test forms	t Reg		>>>>>>	>>>>>			
Training / Instruction Approach							
Lecture / Text	Х	>>>>>>	>>>>>>	>>>>>			
Live Presenters (guest speakers)							
Self study		>>>>>>	>>>>>>	>>>>>			
Demonstration	\$100 p. 161		>>>>>>	>>>>>			
Exhibit			>>>>>>	>>>>>			
Guided Discussion	1.0						
Simulation - knowledge based		+	>>>>>>	>>>>>			
Simulation - hardware		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	27				
Problem solving exercises		>>>>>>	>>>>>>	>>>>>			
Learning to Mastery		>>>>>>	>>>>>>	>>>>>			
Practice / drill		>>>>>>	>>>>>>	>>>>>			
Structured Review			>>>>>>	>>>>>			
Feedback on performance		>>>>>>	>>>>>>	>>>>>			
Remediation	F: No. 17-17		>>>>>>	>>>>>			
Group activities/collaborative tasks	r Maria						
Testing Types							
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>			
Essay							
Performance test - "paper" exercise	1		>>>>>>	>>>>>			
Performance test – hardware simulation				>>>>>			
Performance test – hardware							
Oral testing	124						
No testing/Student course evaluation	Х	>>>>>>	>>>>>>	>>>>>			
Graphics							
2D graphics still	Х	>>>>>>	>>>>>>	>>>>>			
3D graphics still			>>>>>>	>>>>>			
2D animation			>>>>>>	>>>>>			
3D animation	. 00	2000		>>>>>			
2D interactive animation				>>>>>			
3D interactive animation	13.		100				
Pre recorded video /films	100		>>>>>>	>>>>>			
Communications				1			
Audio		>>>>>>	>>>>>>	>>>>>			
Indirect discourse							
Assigned reading		>>>>>>	>>>>>>	>>>>>			
Open Discussion							
Question and answer opportunities	No. and The B.						

Shaded blocks indicate factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Course Name: Phyllis J. Verhonick Research Course	Course Number: A0513			
Synchronous Course	Video Te	eletraining		
Interactivity Factors	Level 1 Low	Level 2 High		
Administrative Requirements				
Self pacing				
Group training	, , , , , , , , , , , , , , , , , , ,	>>>>>>		
On-demand availability	THE R. LANSING AND ASSESSMENT OF THE PROPERTY			
Open entry / open exit				
Detailed student records	emetarion (1900)			
Test Security		>>>>>>		
Multiple test forms		>>>>>		
Training / Instruction Approach				
Lecture / Text	Х	>>>>>		
Live Presenters (guest speakers)		>>>>>		
Self study				
Demonstration		>>>>>>		
Exhibit		>>>>>>		
Guided Discussion		Х		
Simulation – knowledge based		>>>>>		
Simulation - hardware				
Problem solving exercises	CARAMARAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA			
Learning to Mastery				
Practice / drill				
Structured Review	· é			
Feedback on performance	1.5			
Remediation				
Group activities/collaborative tasks	24,			
Testing Types		-		
Objective knowledge tests	and the state of t			
Essay				
Performance test –"paper" exercise				
Performance test – hardware simulation				
Performance test – hardware				
Oral testing				
No testing/Student course evaluation	Χ	>>>>>>		
Graphics				
2D graphics still	X	>>>>>>		
3D graphics still		>>>>>>		
2D animation		>>>>>>		
3D animation		>>>>>		
2D interactive animation	Ammunic guidright originations tysis. Is fitte	and the first of		
3D interactive animation				
Pre recorded video /films		>>>>>>		
Communications				
Audio		>>>>>		
Indirect discourse				
Assigned reading		>>>>>		
Open Discussion	Print of the party of the second			
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

Short Worksheet: Development Time

Sh	ort Worksheet: Devo	l Estimate o	f Developm		our of Instruction			
	Course Name: Phyllis J Verhonick Research Course  Media: WEB Based Training Level: 1							
		Analysis	Design	Development		Sums		
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15	e in in the series of the seri		
2	Multiply line 1 by average * hours100							
3	Average hrs. per phase	40	20	25	15			
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3			
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	12	10	20	4.5			
	Total Labor Hours - sum across line 5			3	878	47		

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Short Worksheet: Development Time**

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction Course Name: Phyllis J Verhonick Research Course Media: Computer Based Training Level: 1 **Analysis** Design Development Implementation Sums Percentage of Time Spent by Task Type .40 .20 .25 .15 by Level Multiply line 1 by AND THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TO THE PERSON NAMED IN COLU average \* DANIESA, SEL MANAGERA. - Miller hours Average hrs. per 40 20 25 15 phase Adjustments \*\* for hours per phase Use 1. for added .3 .5 .8 .3 time and .\_ for less time Adjusted hrs. Per phase. Multiply line 3 12 10 20 4.5 by line 4. Total Labor Hours -47 sum across line 5

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet: Web Based Training						
	rse Name: Phyllis J. Verhonick	Course Number: A05					
Rese	earch Course Write the sum from Refined Estimate	oto Markoboot					
1	estimated number of hrs. per hr. o	•	Hrs. 47				
2	Average hourly labor cost in dollar	S	\$ 50				
3	Multiple line 1 by line 2 and put the	e results on line 3.	\$ 2350				
4	Actual number of classroom equiv converted or developed.		Hrs. 26				
5	Compression: If conversions to as delivery multiply line 4 by .7 (seven the results on line 5. If not a conversion asynchronous delivery skip line 5.	Hrs. 18.2					
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery <b>OR</b> line 3 beconversion to asynchronous deliver on line 6.	\$ 42770					
	Do not use lines 7 to 12 for ar	ny costs that are to	be shared.				
7	Infrastructure Costs		\$				
8	Recurring Costs		\$				
9	Delivery Labor Costs		\$				
10	Travel Costs		\$				
11	Miscellaneous Costs		\$				
12	Add line 7 to 12		\$				
13	Total Cost - Add lines 6 and 12.		\$ 42,770				
14	Number of potential students		# 3,400				
15	Average Cost Per Student Divide	line 13 by line 14	\$ 12.58				

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet: Computer Based Training						
		Course Number: A05					
1	Write the sum from Refined Estimates estimated number of hrs. per hr. of		Hrs. 47				
2	Average hourly labor cost in dollars		\$ 50				
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 2350				
4	Actual number of classroom equiva converted or developed.	lent hours to be	Hrs. 26				
5	Compression: If conversion to asyrmultiply line 4 by .7 (seven tenths) a on line 5. If not a conversion to asyrskip line 5	Hrs. 18.2					
6	Multiply line 3 by line 5 if a conversi asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous deliver on line 6.	\$ 42770					
	Do not use lines 7 to 12 for any costs that are to be shared.						
7	Infrastructure Costs		\$				
8	Recurring Costs		\$				
9	Delivery Labor Costs		\$				
10	Travel Costs		\$				
11	Miscellaneous Costs		\$				
12	Add line 7 to 12	\$					
13	Total Cost - Add lines 6 and 12.		\$ 42,770				
14	Number of potential students		# 3,400				
15	Average Cost Per Student Divide li	ne 13 by line 14	\$ 12.58				
e e e e e e e e e e e e e e e e e e e							

Cost Estimate for a Single Course Over a Five Year Period

Cost Estimate for a Single Co Course Name: Phyllis J. Verhoni Course			urse Numbe	r: A0513		
Technology Selected	Leve	l 1	Level 2	Level 3	Level 4	
WBT	Х					
CBT						
VTT	Low			High		
Other						
Cost Factors			Values		So	urce
Labor hours year 1		85	5.4			
2. Labor hours year 2			5.4	$\dashv$ Course T	echnology N	/latch Table
3. Labor hours year 3			5.4			rity Factors Table
4. Labor hours year 4			5.4			
5. Labor hours year 5			5.4			
6. Subtotal		42				
7. Average labor cost		\$ 5	50			
8. Total labor Cost over 5-yr. p	period.	\$ 213,850				
Multiply line 6 by line 7						
Additional Development/ Deli	very Co	ost	By Year			
9. Cost year 1		\$ (		Data to S	Support Cost	Analysis Worksheet
10. Cost year 2		\$ (	)			
11. Cost year 3		\$0		****		
12. Cost year 4		\$ (			Q-14	
13. Cost year 5		\$ 0 \$ 0 \$ 213,859				
14. Total Additional Costs.  Sum lines 9 to 13 and enter line 14	on					
15. Total Course Cost. Add lines 8 and 14 and enter line 15	er on					
<ol> <li>Average cost over 5 years.</li> <li>Divide line 15 by 5 and enter line 16.</li> </ol>	er on		<b>1</b> 2,770			
17. Potential students year 1		34	100	From Col	urse Informa	ation Summary Sheet
18. Total potential students yea 5 (multiply line 17 by 5. an enter on line 18)	ıd	17	,000			
19. Average cost per student yr. 1 to 5. (divide line 15 by line 18 and enter on line 19)			2.58			

# Military Nursing Practice Course Conversion Analysis

## MILITARY NURSING PRACTICE COURSE

#### Purpose

The purpose of this course is to provide nurse clinicians and middle managers (active duty and civilian) with current concepts, trends, and issues affecting the delivery of care as the military health care system transitions into the new millennium. To provide students with powerful learning tools, knowledge and information that will enable them to effectively participate in the development of appropriate clinical practices.

### Course Content Stability:

Low

Topics and subject matter vary with course theme. That is, trends and practices change and the content changes to reflect these modifications.

#### General Presentation Style:

Distributive

The format of the course provided for dissemination of information in primarily a lecture format, with speakers offering experiential data regarding both management and clinical care topics appropriate to the level of intended audience.

#### Instructional Aids:

Speakers generally spoke from PowerPoint slides projected from an overhead, a 35mm slide projector, or a computer.

# Hands-on Activities:

None

## Degree of Instructional Interaction

There was discussion solicited during and after most presentations. The exchanges were primarily informational.

#### Relevant Instructional Value. High

The course content was clearly focused, and presented the students with serious issues relevant to the course objectives.

#### Recommendation

# Convert to Web-Based Training.

The instructional value of this course, although presently high, would benefit from delivery on a distance learning technology that allowed for one-to-many communications, and an asynchronous delivery. In this way, the forum that allows for the exchange of ideas would be available year-round. For example, a "bulletin board" on the Web would provide a vehicle where questions could be posted, and individuals could provide their insight after they have had some time to reflect, consult others, etc. Furthermore, younger officers would benefit from exposure to these "conversations" just from observing them develop over time. Since approximately 50% of the course can change on an annual basis, the best mode of delivery would be Web Based Training. An additional benefit from converting the course would make it possible for everyone to be exposed to all the information in the three breakout sessions (nine sessions instead of three).

# **DISTANCE LEARNING CONVERSION REPORT FORM**

Course Name: Military Nursing	Practice C	ourse	Course N	lumber: A0515		
Instructional goals of the co- civilians with current concepts, tre transitions into the new millennium enable them to effectively particip	nds and is า.  The coเ	sues affect irse provide	ing the delives participar	very of care as the nts with knowledge	military health and information	care system
Frequency of course offering p	or voor	14	1		lV	INI.
3. Current length of course in hou	-	35	7. Conve	et to DLO	Yes	No
Number of hours to be convert		35	8. Enhan		Х	
5. Number of registered students		80	o. Elliai	ice?	-	X
Number of registered students to     Number of potential students to		2,200				
benefit from the course	iai coulu	2,200				
		1		*****		
9. If item 8 = Yes, Specify					1201	
Technology	Level 1	Level 2	Level 3	Level 4		
WBT		X			100	
CBT		***				
VTT	Low		High			
Other						
Labor Hours Estimation Method	: Short _	X Long	Synchi	ronous	12.04.	
Cost Data	***					
10. Total Cost Year One				\$112,550		
11. Total Cost Year Two				\$56,250		
12. Total Cost Year Three				\$56,250		17.5
13. Total Cost Year Four				\$56,250		-A
14. Total Cost Year Five				\$56,250		
15. Total costs year 1 to 5 (Sun	of lines	10 through	14)	\$337,550		
16. Average cost, years 1 to 5 (D				\$67,510		
17. Total potential students over a number of potential students [item	a five year 6 above]	period. (m by 5.)	ultiply the	11,000		
18. Average cost per potential	student o	ver 5 year i	period.	\$31		
(divide the value in line 15 by the	value in lin	e 17.)				
			· · · · · · · · · · · · · · · · · · ·			
Additional Hardware/Software	Required					3.11
Item:				Cost per unit	Total Cost	
Proposed Enhancements		Cost				
Total Enhancement Costs						

Instructional Formats and Physical Training Requirements

Course Name: Military Nursing Practice Course

Course Number: A0515

of Course ing this structional rmat	Format	Description	Physical Presence Required?
100%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
***************************************	Lab Activity	Hands-on laboratory tasks/procedures.	?

**Course Information Summary Sheet** Course Name: Military Nursing Practice Course Course Number: A0515 Length of course - number of hours of instruction: 34.5 Number of Registered Students: 80 Number of potential students that could benefit from this course: 2.200 Instructional goals of the course: To provide nurse clinicians and middle managers, active duty and civilians with current concepts, trends and issues affecting the delivery of care as the military health care system transitions into the new millennium. The course provides participants with knowledge and information that will enable them to effectively participate in the development of appropriate clinical practices. Frequency of Course Offering: Annual Continuing Education Credit Offered? Yes Number: 34.2 For each item listed, check ✓ row marked "Check" if observed or documented. Administrative Requirements Check Check Self pacing Detailed student records Group training Test Security On-demand availability Multiple test forms Open entry / open exit Training / Instruction Approach Lecture / Text Learning to Mastery Live Presenters (quest speakers) Practice / drill Self study Structured Review Demonstration Feedback on performance Exhibit Remediation Guided Discussion Group activities/collaborative tasks Simulation (roll play, in-basket) Problem solving exercises **Testing Types** Objective knowledge tests Performance test hardware Essay Oral testing Performance test -"paper" No testing/Student course eval Performance test - hardware **Graphics** 2D graphics still 3D animation 3D graphics still 2D interactive animation 2D animation 3D interactive animation Pre recorded video /films Communications Audio Open Discussion

Indirect discourse

Assigned reading

Question and answer opportunities

**Course Technology Match Table** 

Course Military Nursing Practice Course			_	chnolog	ies	
Administrative Requirements	Check	СВТ	WEB	VTT		
Self pacing						
Group training			. *			
On-demand availability				4925		
Open entry / open exit						
Detailed student records		ngantak				
Test Security		-				
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	1					
Live Presenters (guest speakers)						
Self study						
Demonstration						1
Exhibit						
Guided Discussion						
Simulation – knowledge based						<del>                                     </del>
Simulation - hardware						+
Problem solving exercises						
Learning to Mastery				-		+
Practice / drill			-			-
Structured Review				- 1		_
Feedback on performance					W. 4 5.40.5	-
Remediation				- 2		+
Group activities/collaborative tasks						+
Testing Types						
Objective knowledge tests					T .	T
Essay						
Performance test –"paper" exercise				Dares		1
Performance test – hardware simulation				- 6		+
Performance test – hardware						+
Oral testing		.atililit				-
No testing/Student course evaluation	1					+
Graphics						Ц.,
2D graphics still		Γ.		T	I	T
3D graphics still	<u> </u>					+
2D animation						-
3D animation					-	
2D interactive animation	-					+
3D interactive animation			1			
Pre recorded video /films	-					-
Communications		L	1			1
Audio		Γ		T		
Indirect discourse						-
Assigned reading					-	-
Open Discussion						-
Question and answer opportunities		37.00				

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

<b>Course Name:</b> Military Nursing Practice Course	Course N					
Asynchronous Course	WEB Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training		8 - 1 - 1 - 1	·			
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records		>>>>>>	>>>>>>	>>>>>		
Test Security		>>>>>>	>>>>>>	>>>>>		
Multiple test forms			>>>>>>	>>>>>		
Training / Instruction Approach						
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)						
Self study		>>>>>>	>>>>>>	>>>>>>		
Demonstration			>>>>>>	>>>>>		
Exhibit	Leevenen .		>>>>>>	>>>>>>		
Guided Discussion				******		
Simulation – knowledge based	TIN		>>>>>>	>>>>>		
Simulation - hardware				*******		
Problem solving exercises	Para -		>>>>>>	>>>>>>		
Learning to Mastery		>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>>	>>>>>>	>>>>>		
Structured Review	·			>>>>>		
Feedback on performance	1. OF 500 18.		>>>>>>	>>>>>		
Remediation			>>>>>>			
Group activities/collaborative tasks				>>>>>		
Testing Types			•			
Objective knowledge tests	1	>>>>>	>>>>>>	>>>>>		
Essay Essay		**********	,,,,,,,,	7777777		
Performance test –"paper" exercise	Confront			*****		
Performance test – paper exercise  Performance test – hardware simulation	. K		>>>>>	>>>>>		
Performance test – hardware simulation	e e					
Oral testing	0.0					
No testing/Student course evaluation		>>>>>>				
Graphics	1		>>>>>>	>>>>>		
2D graphics still		>>>>>	>>>>>>			
3D graphics still	7			>>>>>		
2D animation	EXAMEN MALL THE ALL		>>>>>>	>>>>>		
3D animation			>>>>>	>>>>>		
	8			>>>>>		
2D interactive animation  3D interactive animation				>>>>>		
Pre recorded video /films			********			
Communications			>>>>>>	>>>>>		
Audio	1					
		>>>>>>	>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>>	>>>>>>	>>>>>		
Open Discussion	, permana		187 Thermoney To 18			
Question and answer opportunities						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

<b>Course Name:</b> Military Nursing Practice Course	Course Number: A0515					
Asynchronous Course	Computer Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training	H 1 4 45					
On-demand availability	,	>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records			40000			
Test Security	100 t 2500 h					
Multiple test forms			>>>>>>	>>>>>		
Training / Instruction Approach						
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)		•				
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration	Seteromonore 3		>>>>>>	>>>>>		
Exhibit	2	4	>>>>>>	>>>>>		
Guided Discussion	A					
Simulation – knowledge based	· ·	T = 47 10	>>>>>>	>>>>>		
Simulation - hardware	4"					
Problem solving exercises		>>>>>>	>>>>>>	>>>>>		
Learning to Mastery		>>>>>>	>>>>>>	>>>>>		
Practice / drill		>>>>>>	>>>>>>	>>>>>		
Structured Review			>>>>>>	>>>>>		
Feedback on performance		>>>>>>	>>>>>>	>>>>>		
Remediation			>>>>>>	>>>>>		
Group activities/collaborative tasks	1 6 7					
Testing Types						
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>		
Essay						
Performance test -"paper" exercise			>>>>>>	>>>>>>		
Performance test – hardware simulation	. (			>>>>>		
Performance test – hardware						
Oral testing	4.25					
No testing/Student course evaluation	1	>>>>>>	>>>>>>	>>>>>>		
Graphics						
2D graphics still	1	>>>>>	>>>>>	>>>>>		
3D graphics still			>>>>>	>>>>>		
2D animation	And the second of the second o		>>>>>>	>>>>>		
3D animation	, v			>>>>>		
2D interactive animation				>>>>>		
3D interactive animation	t :					
Pre recorded video /films			>>>>>>	>>>>>		
Communications						
Audio		>>>>>	>>>>>>	>>>>>		
Indirect discourse						
Assigned reading		>>>>>>	>>>>>>	>>>>>>		
Open Discussion						
Question and answer opportunities	and the second section of the second					

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

# **Short Worksheet: Development Time**

	Media: W	eb Based		Level: 2		
	Analysis	Design	Development	Implementation	Sums	
1 Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15		
2 Multiply line 1 by average * hours			1.54			
200		: .	1 100		.,	
3 Average hrs. per phase	80.00	40.00	50.00	30.00		
4 Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30		
5 Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00		
Total Labor Hours - sum across line 5			and the second		93.0	

<sup>\*</sup> Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Short Worksheet: Development Time**

	Media: Cl	3T Multim	nedia	Level: 2		
	Analysis	Design	Development	Implementation	Sums	
1 Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15		
2 Multiply line 1 by average * hours			awin in the			
200			11 1 1 1 1 1 1 1 1 1 1 1			
3 Average hrs. per phase	80.00	40.00	50.00	30.00		
4 Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30		
5 Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00		
Total Labor Hours - sum across line 5		1		JAN TO	93.00	

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

	Course Cost Estimation Worksheet: Web Based Training	32	
Cou	rse Name: Military Nursing Practice Course	****	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	35
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	24.2
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	112,297.50
	Do not use lines 7 to 12 for any costs that are to be shared.	Jan Sala	
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	112,297.50
14	Number of potential students.	#	2,200
15	Average Cost Per Student Divide line 13 by line 14	\$	51.04
13			1

# **Course Cost Estimation Worksheet**

201	Course Cost Estimation Worksheet: CBT Multimedia		
Co	urse Name: Military Nursing Practice Course		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	35
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	24.2
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	112,297.50
	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	112,297.50
14	Number of potential students.	#	2,200
15	Average Cost Per Student Divide line 13 by line 14	\$	51.04
•			:

# Cost Estimate for a Single Course Over a Five Year Period

Course Name: Military Nursing Pra	rse	Course Number: A0515					
Technology Selected	Level 1	Level 2	Level 3	Level 4			
WBT		X					
CBT							
VTT	.ow	1	High				
Other							
Cost Factors		Values		Source			
1. Labor Hours Year 1		2251			chnology Match Table, y Interactivity Factors Table		
2. Labor Hours Year 2		1125			rs reduced because 50% of the		
3. Labor Hours Year 3		1125		course is s	stable.		
4. Labor Hours Year 4		1125					
5. Labor Hours Year 5		1125		1			
6. Subtotal		6752					
7. Average Labor Cost per hour		\$50					
<ol><li>Total labor cost over a 5 year pe Multiply line 7 by line 6.</li></ol>	riod.	\$337,590					
Additional Development Costs I	By Year						
9. Cost year 1		\$0		Data to Su	pport Cost Analysis Worksheet		
10. Cost year 2		\$0					
11. Cost year 3		\$0					
12. Cost year 4		\$0					
13. Cost year 5		\$0					
<ol> <li>Total additional costs. Sum line and enter on line 14</li> </ol>		\$0					
<ol> <li>Total Course Cost. Add lines 8 and enter on line 15.</li> </ol>	and 14	\$337,590					
16. Average cost over 5 years. Div 15 by 5 and enter on line 16.	ide line	\$67,518	75.64.00		771		
17. Potential students year 1.		2200		From Cour	rse Information Summary Sheet		
18. Total potential students year 1 (multiply line 17 by 5 and enter on li		11000					
19. Average cost per student year (Divide line 15 by line 18 and enter 18)		\$31		Round up	to the nearest whole dollar.		

# Army Nurse Corps Company Grade Leadership Course Conversion Analysis

### ARMY NURSE CORPS COMPANY GRADE LEADERSHIP COURSE

#### Course Purpose

This course provides participants an interactive forum in which to develop their own personal framework for the AMEDD vision that supports leadership development. The stated purpose of the course is to prepare company grade nurse leaders to participate in the evolution of the military health care system.

#### Course Content Stability:

Low

The content of this course changes from year to year to reflect the changing needs of the Army and the leadership issues relevant to the Army Nurse Corps.

#### **General Presentation Style:**

## Distributive/Collaborative

This course consisted of several lecture-style presentations, on-site visits to the Pentagon and Fort Detrick, and a small discussion group activity spread out over a 3-day period. During the discussion group periods, participants used the information that was presented to them during lectures to prepare a brief for Brigadier General Simmons on issues of concern and their possible solutions. The briefing took place on the final day of the course. It should be noted that this small discussion group/briefing activity was not included in the list of objectives for the course, nor was the time accounted for in the course schedule. However, because this seemed such an integral part of this course, it was included in our analysis. Finally, there were several scheduled 'networking events' in the form of working lunches and a dinner during which senior level nurses from various positions and branches of the military were available to answer questions and to offer career guidance.

### Instructional Aids:

35mm and PowerPoint slides were used during lectures providing both visual aides and outlined information. A video was used to supplement one lecture. In addition, each of the instructors provided handouts with supplemental information relevant to the topic they were addressing.

#### Hands-on Activities:

#### None

#### Degree of Instructional Interaction

During lecture presentations, students asked questions looking for elaboration of the information presented. These questions tended to feed off of one another, at times opening up into a discussion among the students guided by the lecturer. During field trips, the students met with individuals who held several unique positions within the ANC, and were able to see first hand some of the labs and wards where their work was done. They were able to try some of the latest technological developments that are ready for testing in the field, and make contacts with the developers. The briefing exercise, in which groups of students prepared to brief the General about issues of their choosing, required a high degree of interactivity both among students as well as with the General.

# Relevant Instructional Value:

High

This course provides a significant amount of information that is relevant to the professional performance of the attendees.

# Recommendation

#### Do not convert to distance learning

Video Teletraining (VTT) was considered as a medium for this course. Although the cost of converting to VTT would represent substantial savings over the current method, it does not appear that the course objectives (formal and informal) could be accomplished by VTT. Specifically, the benefits gained from the small group interaction leading to the final briefing and the field trips involving interaction with senior nursing leaders could not be accomplished by distance learning. This course is a dynamic and highly interactive course whose goal of better preparing tomorrow's leaders is best delivered in real-time. The activities allow the students to go far beyond the basic learning of facts. They learn about career opportunities which must be acted upon today in order to experience them 10 years from now and be better prepared for the leadership roles in which many of them are already filling.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Army Nurse Corps Company Grade Leadership Course			Course Number: A0524				
Instructional goals of the	course: To	provide part	ticinants an	interactive t	orum in wh	ich to deve	alon their own
personal framework for the Al						ici to deve	siop their owr
2. Frequency of course offeri	1			1800.000	Yes	No	
3. Current length of course in	hours	32	7. Conve	ert to DL?			Х
4. Number of hours to be cor	verted	0	8. Enhan	ice?		- 3744U	Х
<ol><li>Number of registered stud</li></ol>	ents	47					
Number of potential students that could benefit from the course		40					
9. If item 8 = Yes, Specify		W-150-100-100					
Technology	Level 1	Level 2	Level 3	Level 4	1		
WBT	Lovei	LUVUIZ	LCVCIU	L67614			
CBT							
VTT	Low		High 2	X	VTT Con	sidered	
Other			1.1.9.1		11110011	0.40.04	
Labor Hours Estimation Me	thod: Short	Long	Synchro	nous X			NA.
					•		
Cost Data							
10. Total Cost Year One				\$23,980			7V w n/m
11. Total Cost Year Two				\$15,980			
12. Total Cost Year Three			W-u-l_	\$15,980			
13. Total Cost Year Four	7 7 7 1 1 Thu			\$15,980			·
14. Total Cost Year Five				\$15,980			
15. Total costs year 1 to 5				\$87,900			
(Sum of lines 10 through 14	)				****		****
16. Average cost, years 1 to	5 (Divide value	in line 15 h	ov 5)	\$17,580			
17. Total potential students of	•		,	200			
number of potential students			iditiply tile	200			
18. Average cost per poten	-		period	\$440	34-44		man
(divide the value in line 15 by			porrou.	Ψ 1 10			
			*****		140.00		
Additional Hardware/Softv	are Required				T 11.2	· · · · · · · · · · · · · · · · · · ·	
Item:			***************************************	Cost per	unit	Total	
	***************************************					Cost	
Proposed Enhancements		Cost					
						****	
Total Enhancement Costs							

Instructional Formats and Physical Training Requirements

Course Name: Army Nurse Corps Company Grade Course Number: A0524
Leadership Course

of Course sing this structional ormat	Format	Description	Physical Presence Required?				
55.54%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.					
3.12%	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No				
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No				
15.6%	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?				
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.					
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?				
10.92%	Student Verbal Presentations	Students present verbal information to the larger group.					
	Student Procedural Presentations	Students present procedural information to the larger group.	?				
14.82%	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?				
	Shop Activity	Hands-on technical tasks/procedures.	?				
	Lab Activity	Hands-on laboratory tasks/procedures.	?				

**Course Information Summary Sheet** 

Course Name: Army Nurse Corps Com	ipany Grad	e Leadership Course		
Course Number: A0524				
Length of course - number of hours	of instruct	ion: 27.4 (32.05 actual)		
Number of Registered Students: 47				
Number of potential students that co	uld benefit	from this course: 40		
Instructional goals of the course: To evolution of the military health care syst	prepare co		ate in the	
Frequency of Course Offering: Annua	al			
Continuing Education Credit Offered? Yes Number: 25				
For each item listed, check ✔ row	/ marked	"Check" if observed or documen	ted.	
Administrative Requirements	Check		Check	
Self pacing		Detailed student records		
Group training		Test Security		
On-demand availability		Multiple test forms		
Open entry / open exit		Widthple teet forme		
Fraining / Instruction Approach	<u></u>		<u> </u>	
Lecture / Text	1	Learning to Mastery	7	
Live Presenters (guest speakers)		Practice / drill		
Self study		Structured Review		
Demonstration		Feedback on performance		
Exhibit		Remediation		
Guided Discussion		Group activities/collaborative tasks		
Simulation (roll play, in-basket)				
Problem solving exercises	1			
Testing Types				
Objective knowledge tests		Performance test hardware		
Essay		Oral testing		
Performance test –"paper"		No testing/Student course eval		
Performance test – hardware				
Graphics				
2D graphics still	1	3D animation		
3D graphics still		2D interactive animation		
2D animation		3D interactive animation		
		Pre recorded video /films	1	
Communications	1			
Audio		Open Discussion		
Indirect discourse		Open Discussion  Question and answer opportunities		
Assigned reading	+		<del></del>	

**Course Technology Match Table** 

Course Army Nurse Corps Company Grade		Technologies				
Leadership Course  Administrative Requirements Check		CBT WBT VTT				
Self pacing	Oncor	001	1101	VII		-
Group training	+					
On-demand availability	-					
Open entry / open exit	1		-	Perfect		
Detailed student records				-	-	_
Test Security		er W.				
Multiple test forms	-					
Training / Instruction Approach	-					_
Lecture / Text						
Live Presenters (guest speakers)	1				-	
Self study						
Demonstration						
Exhibit	-		-			
Guided Discussion	-				-	+
Simulation – knowledge based						-
Simulation - knowledge based						_
Problem solving exercises					-	
Learning to Mastery	<b>✓</b>					
Practice / drill				159		
Structured Review			-	_		
Feedback on performance	-			- 1		_
Remediation	-		-	, 16. , 15.		
Group activities/collaborative tasks	-					
Testing Types						
Objective knowledge tests	1	1	T		T	<del></del>
Essay						-
Performance test –"paper" exercise				15-12		-
Performance test – hardware simulation	+		-	50)		
Performance test – hardware	-			Part.		_
Oral testing	-	F				-
No testing/Student course evaluation	1					
Graphics						
2D graphics still	1			1	1	
3D graphics still						+-
2D animation						-
3D animation						+
2D interactive animation						-
3D interactive animation	1					+
Pre recorded video /films	1					
Communications		L				
Audio		T		T	T	
Indirect discourse						
Assigned reading						+
Open Discussion	1					
Question and answer opportunities	1	Newson William A				+

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

Course Name: Army Nurse Corps	Course Number: A0524				
Company Grade Leadership Course	\ <u>\</u>				
Synchronous Course		eletraining			
Interactivity Factors	Level 1 Low	Level 2 High			
Administrative Requirements					
Self pacing					
Group training		>>>>>>			
On-demand availability					
Open entry / open exit					
Detailed student records	To Hadura Barbaye que de				
Test Security		>>>>>>			
Multiple test forms		>>>>>			
Training / Instruction Approach					
Lecture / Text	1	>>>>>			
Live Presenters (guest speakers)		>>>>>>			
Self study					
Demonstration		>>>>>>			
Exhibit		>>>>>>			
Guided Discussion					
Simulation – knowledge based		>>>>>>			
Simulation - hardware					
Problem solving exercises		1			
Learning to Mastery	No the same				
Practice / drill					
Structured Review	. \$				
Feedback on performance					
Remediation					
Group activities/collaborative tasks	0.	1			
Testing Types					
Objective knowledge tests					
Essay					
Performance test -"paper" exercise					
Performance test – hardware simulation	-				
Performance test – hardware					
Oral testing					
No testing/Student course evaluation	1	>>>>>>			
Graphics	<b>T</b>				
2D graphics still	J	>>>>>>			
3D graphics still	4	>>>>>>			
2D animation					
3D animation		>>>>>			
2D interactive animation		>>>>>			
3D interactive animation	Talkasalinin ali Albania asi Mbo				
Pre recorded video /films	1				
Communications	<b>Y</b>	>>>>>>			
Audio					
Indirect discourse		>>>>>>			
Assigned reading					
Open Discussion		>>>>>>			
Question and answer opportunities	the state of the same	<b>V</b>			
Question and answer opportunities		✓			

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

# **Calculation of Synchronous Training Costs**

Leadership Course	Course Number: A0524		
•			
Labor Costs	10.40.000		
$\frac{\text{Development Cost}}{(\$50)} = (320 \text{ hrs.}) \times \text{average hourly rate}$	\$ 16,000		
Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate (\$50)	\$ 3,700		
Non-local Labor Cost = Number of non-local presenters x (length of the course in days +1) x number of times offered x average daily rate (\$400)	\$ 0		
Moderator (\$400 per 8 hour day the course is taught)	\$ 0		
Local Labor Cost = Number of local presenters x average hourly rate (\$50) X 2 X number of times course is offered.	\$ 3,800		
Total Labor Costs per session	\$ 23,500		
Additional Cost (any costs not captured above)			
Total Per Diem = (length of course in days plus one	10		
travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented.	0		
Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented.	0		
Total dollar amount paid as honorariums.	\$ 480		
(Other)			
Total Estimated Cost: Add Total Per Diem, Air Fa Costs.	re, Labor Costs, and Additional		
Total Labor Costs	\$ 23,500		
Total Per Diem	\$ 0		
Total Airfare	\$ 0		
Total paid as honorariums	\$ 480		
TOTAL COURSE COST Year 1	\$ 23,980		
Potential Students	40		
Cost Per Student = Total course costs divided by potential number of students.	\$ 600		
	-360		

# Cost Estimate for a Single Course Over a Five Year Period

Course Name: Army Nurse Corps ( Leadership Course	Company	Grade	Course N	umber: A08	524
Technology Selected	Level 1	Level 2	Level 3	Level 4	
WBT	***				
CBT			†	-	
VTT	ow		High >	(	
Other					
Cost Factors		Values		Source	
1. Labor Hours Year 1		470	7-74 <sup>-</sup>	Course Te	chnology Match Table, y Interactivity Factors Table
2. Labor Hours Year 2		310		T comolog	y interactivity i actors rable
3. Labor Hours Year 3		310		1	
4. Labor Hours Year 4		310	****		
5. Labor Hours Year 5		310		1	
6. Subtotal	·	1710			
7. Average Labor Cost per hour		\$50			
8. Total labor cost over a 5 year per Multiply line 7 by line 6.	riod.	\$85,500			
Additional Development Costs I	By Year				1000
9. Cost year 1		\$480		Data to Su	pport Cost Analysis Worksheet
10. Cost year 2		\$480			
11. Cost year 3		\$480	-		
12. Cost year 4		\$480			
13. Cost year 5		\$480			
<ol> <li>Total additional costs. Sum line and enter on line 14</li> </ol>	s 9 to 13	\$2,400			
<ol> <li>Total Course Cost. Add lines 8 and enter on line 15.</li> </ol>	and 14	\$87,900			
16. Average cost over 5 years. Div 15 by 5 and enter on line 16.	ide line	\$17,580			
17. Potential students year 1.		40	7	From Cour	rse Information Summary Sheet
18. Total potential students year 1 t (multiply line 17 by 5 and enter on lin		200			
19. Average cost per student year 1 (Divide line 15 by line 18 and enter of 18)		\$440		Round up	to the nearest whole dollar.

# ARMY MEDICAL SPECIALIST CORPS EXECUTIVE MANAGEMENT COURSE Conversion Analysis

## AMSC MEDICAL SPECIALIST CORPS EXECUTIVE MANAGEMENT COURSE

#### Course Purpose:

The purpose of the course was to provide knowledge and tools to allow AMSC Senior Leaders to incorporate the Surgeon General's goals (insuring readiness, designing organization, managing care, valuing people, and leveraging technology) in strategically positioning the Corps for mission accomplishment in the 21st Century.

#### Course Content Stability:

The course is presented alternate years with a content selected to meet current course focus/objectives and needs. As such, it is almost entirely dynamic and subject to change.

#### General Presentation Style: Distributive

This course was delivered using lecture, seminar, or a combination of these formats. The majority of the sessions, while falling within the definition of a lecture (one instructor to many learners), were structured to encourage and facilitate a highly interactive discussion and question and answer environment. The information provided in the educational sessions was used to foster skills that were subsequently implemented during the group activity sessions.

#### Instructional Aids:

A combination of overhead slides, computer-generated slides, videotapes, and handouts supported presentation of the course materials

#### Hands-on Activities:

Heavily interactive group activities designed to use problem-solving, conflict-resolution, and other leadership skills presented during the course were conducted. These sessions, while not incorporating training with equipment or tools, could be considered to meet the definition of a "hands-on" experience facilitating practical experience using the skills taught in the course.

#### Degree of Instructional Interaction

A high level of interaction was demonstrated, both during the lecture sessions and the group activities. Questions and discussions during the sessions tended to incorporate real-world situational problems and issues and an exploration of the means by which the content of the specific presentation might be utilized to address the problem or issue.

#### Relevant Instructional Value:

The course had well-written behavioral objectives that were adhered to during the course. All material was extremely appropriate to military leaders at the level in attendance.

#### Recommendation

#### Do not convert.

This course, through utilization of the AMSC node of the AMEDD Knowledge Management Network, is currently incorporating distance learning concepts by maximizing continued participation of students in the ongoing Corps strategic planning and problem-solving activities initiated during the course. It should also be noted that pre-course activities involving problemidentification by course participants was planned, but logistical problems within the Network prevented its implementation. In addition, VTC was utilized to allow participation of the Surgeon General of the Army directly from his office in the D.C. area to the course site. It is clear that the planners of this course are already aware of, and are appropriately incorporating, distance learning concepts in course execution. The only conversion media considered was VTC. However, the current cost per student (\$840) is less than the cost to convert (\$1,742). In addition, it is doubtful if all course objectives could be adequately met with any distance learning format.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: Army Medical Sp Executive Management Course	ecialist Co	rps	Course N	lumber: A 0624		
1. Instructional goals of the co AMSC Senior Leaders to incorpormanaging care, valuing people, a accomplishment in the 21st Centu	rate the Sund leverag	rgeon Gene	eral's goals	(insuring readiness,	designing or	ganization,
Frequency of course offering p	er vear	111			Yes	No
Current length of course in hor	•	36	7. Conve	art to DL2	162	X
Number of hours to be conver		0	8. Enhan			X
Number of registered students		50	O. Linian			
Number of potential students to benefit from the course		50				
9. If item 8 = Yes, Specify		**		And the Second	· · · · · · · · · · · · · · · · · · ·	
Technology	Level 1	Level 2	Level 3	Level 4		
WTB						
CBT						
VTT	Low		High			
Other						
Labor Hours Estimation Method	d: Short _	Long _	Synchro	nous <u>X</u>		
Cost Data		-			1778-27	
10. Total Cost Year One				\$132,366		
11. Total Cost Year Two				\$75,766		
12. Total Cost Year Three				\$75,766		
13. Total Cost Year Four				\$75,766		
14. Total Cost Year Five				\$75,766		
15. Total costs year 1 to 5 (Sur	n of lines	10 through	14)	\$435,430		
		•				
16. Average cost, years 1 to 5 (D	ivide value	in line 15 k	oy 5)	\$87,086		
17. Total potential students over number of potential students [item			ultiply the	250		
<b>18.</b> Average cost per potential (divide the value in line 15 by the			period.	\$1,742	1.00	
Additional Hardware/Software	Required				0.5-25	
Item:				Cost per unit	Total Cost	
Proposed Enhancements		Cost		The state of the s		7-464
Total Enhancement On the						
Total Enhancement Costs						

The course is offered on a bi-annual basis.
The current cost per student is \$840

Instructional Formats and Physical Training Requirements
Course Name:

Army Medical Specialist Corps Executive

Course Number:

A 0624

C	A.		rs	Δ	N	2	m	Δ	•
u	u	u	13	<b>t:</b>	IV	$\boldsymbol{a}$		œ	

Course Name: Army Medical Specialist Corps Executive Management Course

of Course ing this tructional rmat	Format	Description	Physical Presence Required?				
50%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No				
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No				
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No				
50% Small Group Discussion		Small groups of students (2~5) discuss an assigned topic.	?				
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?				
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?				
	Student Verbal Presentations	Students present verbal information to the larger group.	?				
	Student Procedural Presentations	Students present procedural information to the larger group.					
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?				
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Shop Activity	Hands-on technical tasks/procedures.	?				
	Lab Activity	Hands-on laboratory tasks/procedures.	?				

**Course Information Summary Sheet** 

Course Name: Army Medical Specialist	Corps Exe	cutive Manageme	nt Course	
Course Number: A 0624				
Length of course - number of hours	of instruct	ion: 36		
Number of Registered Students: 50				
Number of potential students that co	uld benefit	from this course	: 50	
Instructional goals of the course: The to allow AMSC Senior Leaders to incorp designing organization, managing care, positioning the Corps for mission accommodates.	orate the S valuing per	turgeon General's ople, and leveragin	goals (insuring readir og technology) in strat	ess,
Frequency of Course Offering: Every	other year			
Continuing Education Credit Offered	? Yes		Number: 28	
For each item listed, check ✓ row	marked '	"Check" if obse	rved or document	ed.
Administrative Requirements	Check			Check
Self pacing		Detailed student	records	
Group training		Test Security		
On-demand availability		Multiple test forn	ns	
Open entry / open exit				
Training / Instruction Approach				
Lecture / Text	<b>√</b>	Learning to Mas	tery	
Live Presenters (guest speakers)		Practice / drill		
Self study		Structured Review	ew	
Demonstration		Feedback on pe	rformance	
Exhibit		Remediation		
Guided Discussion		Group activities/	collaborative tasks	<b>√</b>
Simulation (roll play, in-basket)				
Problem solving exercises	✓			
Testing Types	<b>,</b>			
Objective knowledge tests		Performance tes	st hardware	
Essay		Oral testing		
Performance test – "paper"		No testing/Stude	ent course eval	<b>√</b>
Performance test – hardware				
Owen Bire	<u> </u>			
Graphics of the control of the contr		2D animatian		1
2D graphics still 3D graphics still	<b>√</b>	3D animation	animation	
2D animation		2D interactive 3D interactive		
2D animation		Pre recorded		,
Communications		rie lecolded	video /iliris	<b>V</b>
Audio		Open Discuss	ion	
Indirect discourse		Question and		
Assigned reading		Question and	G.1.51101	
		I		1

**Course Technology Match Table** 

Course: Army Medical Specialist Corps Ex Management Course	ecutive	recrinologies				
Administrative Requirements	Check	CBT	WBT	VTT	1	T
Self pacing	GHOOK	00,				-
Group training						
On-demand availability						
Open entry / open exit				25,		
Detailed student records				26		
Test Security						
Multiple test forms						
Training / Instruction Approach						
Lecture / Text	1		-			
Live Presenters (guest speakers)	_					
Self study						
Demonstration						
Exhibit				1		+
Guided Discussion						+
Simulation – knowledge based						
Simulation - hardware						
Problem solving exercises	1					+
Learning to Mastery			-			
Practice / drill				with (T		
Structured Review				4		+
Feedback on performance						<del> </del>
Remediation			1			_
Group activities/collaborative tasks	1					
Testing Types					-l	
Objective knowledge tests					T	T
Essay						
Performance test –"paper" exercise				16, 23		
Performance test – hardware simulation						
Performance test – hardware		F	, age 100 a			
Oral testing		2			La .	
No testing/Student course evaluation						
Graphics						
2D graphics still	✓					
3D graphics still						
2D animation						
3D animation						
2D interactive animation				NATIO COLO		
3D interactive animation		1		100000		
Pre recorded video /films	<b>1</b>					
Communications						
Audio						
Indirect discourse						
Assigned reading						
Open Discussion	1	E sold on the				
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side, then this technology should not be used for the course.

**Technology Interactivity Factors** 

Course Name: Army Medical Specialist Corps Executive Management Course	Course Number: A 0624					
Synchronous Course	Video Te	eletraining				
Interactivity Factors	Level 1 Low					
Administrative Requirements						
Self pacing						
Group training		>>>>>>				
On-demand availability						
Open entry / open exit						
Detailed student records	D -65 200					
Test Security		>>>>>>				
Multiple test forms		>>>>>>				
Training / Instruction Approach						
Lecture / Text	1	>>>>>				
Live Presenters (guest speakers)		>>>>>>				
Self study						
Demonstration		>>>>>>				
Exhibit		>>>>>>				
Guided Discussion						
Simulation – knowledge based		>>>>>>				
Simulation - hardware						
Problem solving exercises	F North and a second a second and a second a	1				
Learning to Mastery	f 1					
Practice / drill						
Structured Review	1 4					
Feedback on performance						
Remediation						
Group activities/collaborative tasks	1.5	1				
Testing Types						
Objective knowledge tests						
Essay		The termination of the control of th				
Performance test "paper" exercise						
Performance test – hardware simulation						
Performance test – hardware						
Oral testing	4					
No testing/Student course evaluation		>>>>>>				
Graphics	4					
2D graphics still	1	>>>>>				
3D graphics still		>>>>>>				
2D animation		>>>>>>				
3D animation		>>>>>>				
2D interactive animation	D v	*				
3D interactive animation						
Pre recorded video /films	1	>>>>>>				
Communications						
Audio		>>>>>>				
Indirect discourse						
Assigned reading		>>>>>				
Open Discussion		1				
Question and answer opportunities	14					

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

# Data Required to Calculate Time and Cost of Synchronous Training

Course Name: Army Medical Specialist Corps Executive Management Course  Course Number: A 0624		
Data Required: Time and Cost of Synchronous Training - VTT		
Level of Interactivity:	Lov	w High X
Number of time the course is to be offered If interactivity is high then: divide the number of participants by 20 to determine the number of times the course should be offered. If interactivity is low then the number of times the course is offered = 1	#	3 sessions
Length of the course in days.	#	5 per session
Length of the course in contact hours to be converted.	#	36
Total Studio Time = Course length in hours	#	36
Total number of presenters.	#	13
Number of non-local presenters.	#	8
Total dollar amount paid as honorariums.	\$	\$6,720
Local daily per diem rate.	\$	\$127
Amount spent on presenter air fare (From Course administrators survey.)	\$	\$2,100
Salary, average daily rate, assume average 8 hour day (military and govt. civilian) = \$400	\$	\$400
Average hourly rate = \$50	\$	\$50
Current number of registered students.	#	50
Potential number of students .	#	50
Preparation and planning time (average = 320 hours.)	#	320
	JAN 1	

# Calculation of Synchronous Training Costs

Course Name: Army Medical Specialist Corps	Course Number: A 0624
Executive Management Course	
Labor Costs	
$\frac{\text{Development Cost}}{(\$50)} = (320 \text{ hrs.}) \text{ x average hourly rate}$	\$16,000
Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate (\$50)	\$6,150
$\frac{\text{Non-local Labor Cost}}{\text{x (length of the course in days +1) x number of times}}$ offered x average daily rate (\$400)	\$57,600
Moderator (\$400 per 8 hour day the course is taught)	\$1,800
Local Labor Cost = Number of local presenters x average hourly rate (\$50) X 2 X number of times course is offered.	\$1,500
Total Labor Costs per session	\$83,050
Additional Cost (any costs not captured above)	1.
Total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented.	\$6,096
Total Air Fare = (Average Round Trip Air Fare x number of non-local presenters) x number of times the course will be presented.	\$6,300
Total dollar amount paid as honorariums.	\$6,720
(Other)	
Total Estimated Cost: Add Total Per Diem, Air Fa Costs.	re, Labor Costs, and Additional
Total Labor Costs	\$83,050
Total Per Diem	\$6,096
Total Air Fare	\$6,300
Total paid as honorariums	\$6,720
TOTAL COURSE COST Year 1	\$102,16 6
Potential Students	50
Cost Per Student = Total course costs divided by potential number of students.	\$2,043
E. 1994	-20

# Cost Estimate for a Single Course Over a Five Year Period

Course Name: Army Medical Spec Executive Management Course	S	Course N	umber: A 0	624	
Technology Selected	Level 1	Level 2	Level 3	Level 4	
WBT					
СВТ					
VTT	Low	I	High X		
Other					
Cost Factors		Values		Source	
Labor Hours Year 1		2265			chnology Match Table,
					y Interactivity Factors Table
2. Labor Hours Year 2		1133			-
3. Labor Hours Year 3		1133		1	
4. Labor Hours Year 4		1133			
5. Labor Hours Year 5		1133			
6. Subtotal		6795			91) (100)
7. Average Labor Cost per hour		\$50			W. All Control of the
8. Total labor cost over a 5 year pe	eriod.	\$339,750			7 100-
Multiply line 7 by line 6.					
Additional Development Costs	By Year				
9. Cost year 1		\$19,116		Data to Su	pport Cost Analysis Worksheet
10. Cost year 2		\$19,116			
11. Cost year 3		\$19,116			
12. Cost year 4		\$19,116			We do not
13. Cost year 5		\$19,116			
14. Total additional costs. Sum lin and enter on line 14	es 9 to 13	\$95,580			
15. Total Course Cost. Add lines and enter on line 15.	8 and 14	\$435,330			
16. Average cost over 5 years. Di 15 by 5 and enter on line 16.	vide line	\$87,066			
17. Potential students year 1.		50		From Coul	rse Information Summary Sheet
18. Total potential students year 1 (multiply line 17 by 5 and enter on		250			
<ul><li>19. Average cost per student year</li><li>(Divide line 15 by line 18 and enter</li><li>18)</li></ul>		\$1,741		Round up	to the nearest whole dollar.

# AMSC Combat Casualties and Humanitarian Missions Course Conversion Analysis

#### SUPPORT OF COMBATICASUALETY CARE AND HUMANITARIAN MISSION

#### Course Purpose:

To introduce participants to a wide variety of deployment missions and environments, and to assist them in planning for their participation in future deployments.

#### Course Content Stabilities

Low

This course focuses on presenting the latest relevant information. Each year, different speakers discuss their recent deployment experiences. In addition, experts discuss current operations and world threats.

#### General Presentation Style: Distributive/Interactive

The majority of this course was delivered using a lecture format with opportunity for questions and answers. For each of the primary attending groups (Dietitians and Physical Therapists), there was an activity in which direct involvement of the students was required.

#### Instructional Aids:

35mm slides were used by approximately 65% of the speakers. 50% relied on overhead/PowerPoint during their presentations. Special Equipment was used for demonstrations in about 5% of the activities.

#### Hands-on Activities:

Minor (constructing a Middle Upper Arm Circumference (MUAC) tape to assess malnutrition).

#### Degree of Instructional Interaction:

There was for the most part a high degree of dialogue between presenters and participants during the didactic portions. Participants not only asked questions of the speakers, but also offered their perspectives and experiences as related to a specific content area.

#### Relevant Instructional Value:

High

The entire course was structured to introduce participants to a wide variety of deployment missions and environments and to assist them in planning for their participation in deployments in the future.

#### Recommendation

### Do not convert to a Distance Learning format.

While the basic content of each didactic session could be presented via distance learning, the group dynamics significantly enhanced the educational experience of these sessions. There were several activities ("Do a Lot with a Little" brainstorming; a group deployment exercise) that relied on group participation for success. Furthermore, a hands-on demonstration and practice of special deployment equipment enabled the students to practice and become familiar with equipment that is not readily available to them unless deployed.

There would be value in providing the information presented by the speakers to a wider audience via a distance learning technology. Analysis has shown that 38 hours (73%) of this course could be converted to Web Based Training. Although the educational experience would not be comparable, it would be valuable. While the course is not recommended for conversion consideration may be given to providing a distance learning alternative to the 96% of potential participants not in attendance who could benefit from much of the information provided. Actual time per student spent on such a course would be considerably less that 35 hours given that dietitians and physical therapists would follow different tracks. The Alternative provided is for informational purposes only and does not constitute a recommendation to convert.

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: ALTERNATIVE: AMSC Casualties and Humanitarian Missions			Сог	ırse	Num	ber:	A0630				
1. Instructional goals of the cou and physical therapist of domestic, join course promotes understanding of milit (MOOTW), and develops understandin health care under battlefield conditions	t, and inte ary missi g of the s	erna ons trat	ational ir s in war a tegic pla	and	wide v militai ng req	ariety ry ope uired	of deplerations for asse	oyed othe essm	environr r than wa ent and c	nents. ar delivery	The
2		- ш	4								
2. Frequency of course offering pe			1				L- DI 0			Yes	No
<ol> <li>Current length of course in hour</li> <li>Number of hours to be converte</li> </ol>			35	7.			to DL?				X
	a		35	8.	Enr	ance					Х
5. Number of registered students	- 4	#	80								
<ol><li>Number of potential students the could benefit from the course</li></ol>	al	-44	2000								
could benefit from the course		#	2000				*******				
9. If item 8 = Yes, Specify:											
	L aval 4		Laval	2	1	1 2			I		
Technology	Level 1	-	Level	_	Leve	91 3	Leve	4			
WBT		$\perp$	Х								
CBT	1				1.12.1						
VTT	Low	_			High						
Other											
Labor Hours Estimation Method:			Long st Data		Sync	hron	ous _			-	
10. Total Cost Year One						\$ 11	3,925				
11. Total Cost Year Two						\$ 11	3,925		1		
12. Total Cost Year Three						\$ 11	3,925				
13. Total Cost Year Four							3,925				
! 4. Total Cost Year Five							3,925				
15. Total costs year 1 to 5 (Sum	of lines	11	0 throu	gh	14)	\$ 56	9,625				
16. Average cost, years 1 to 5 (div				by	(5)	\$ 11	3,925				
17. Total potential students over a	•										
(multiply the number of potenti	al stude	nts	(item 6	ak	ove)						
by 5.)						# 10	,000				
18. Average cost per potential s	tudent o	ve	r 5-yea	r							
period.											
(divide the value in line 15 by t	he value	ın	line 1/	)		\$ 57					
A July		•	(0.1								
	nal Hard	w	are/Sot	twa	are Re						
Item:						Cos	t per u	nit	Total	Cost	
5											
Proposed Enhancement(s)	Cost										
	\$										
	\$					T					
	\$										
Total Enhancement Costs	\$										
Programme and the second secon									1.5		

Instructional Formats and Physical Training Requirements

Course Name: Alternative: AMSC Combat Casualties and Humanitarian Missions Course

Course Number: A0630

of Course ing this tructional rmat	Format	Description	Physical Presence Required?
100%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?
	Student Verbal Presentations	Students present verbal information to the larger group.	?
	Student Procedural Presentations	Students present procedural information to the larger group.	?
**************************************	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?
	Shop Activity	Hands-on technical tasks/procedures.	?
***************************************	Lab Activity	Hands-on laboratory tasks/procedures.	?

**Note:** For this alternative, assume 11 hours common core instruction and 12 hours each of focused instruction for dietitians and physical therapists. Level of interactivity is set at Level 2. Web Based Training would be used due to the large number of potential authors (currently presenters). Assume that 100% of the content will change each year.

### **Course Information Summary Sheet**

Audio

Indirect discourse

Assigned reading

Course Name: ALTERNATIVE: AMSC Combat Casualties and Humanitarian Missions Course Course Number: A0630 Length of course - number of hours of instruction: Number of Registered Students: 80 Number of potential students that could benefit from this course: 2000 Instructional goals of the course: To enhance the overall military readiness of military dietitians and physical therapist of domestic, joint, and international in a wide variety of deployed environments. The course promotes understanding of military missions in war and military operations other than war (MOOTW), and develops understanding of the strategic planning required for assessment and delivery of health care under battlefield conditions. MOOTW, and humanitarian and disaster relief missions. Frequency of Course Offering: Once a year Continuing Education Credit Offered? Yes Number: 29.5 For each item listed, check ✓ row marked "Check" if observed or documented. Administrative Requirements Check Check Self pacing Detailed student records Group training Test Security On-demand availability Multiple test forms Open entry / open exit Training / Instruction Approach Lecture / Text  $\overline{\mathsf{X}}$ Learning to Mastery Live Presenters (guest speakers) Practice / drill Self study Structured Review Demonstration Feedback on performance Exhibit Remediation Guided Discussion Group activities/collaborative tasks Simulation (roll play, in-basket) Problem solving exercises **Testing Types** Objective knowledge tests Performance test hardware Essay Oral testing Performance test -"paper" No testing/Student course eval. X Performance test - hardware Graphics 2D graphics still X 3D animation 3D graphics still 2D interactive animation 2D animation 3D interactive animation Pre recorded video /films Communications

Open Discussion

Question and answer

**Short Worksheet: Development Time** 

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction
Course Name: ALTERNATIVE: AMSC Combat Casualties and Humanitarian Missions Course
Media: WEB Based Training Level: 2

Media: WEB Based Training Level: 2										
		Analysis	Design	Development	Implementation	Sums				
1	Percentage of Time Spent by Task Type by Level	.40	.20	.25	.15					
2	Multiply line 1 by average * hours200									
3	Average hrs. per phase	80	40	50	30					
4	Adjustments ** for hours per phase Use 1 for added time and for less time	.3	.5	.8	.3					
5	Adjusted hrs. Per phase. Multiply line 3 by line 4.	24	20	40	9					
	Total Labor Hours - sum across line 5					93				

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

	Course Cost Estimate Worksheet	ksheet: Web Base	d Training
AMS		Course Number: A	
1	Write the sum from Refined Estimat estimated number of hrs. per hr. of	,	Hrs. 93
2	Average hourly labor cost in dollars		\$ 50
3	Multiple line 1 by line 2 and put the	results on line 3.	\$ 4650
4	Actual number of classroom equival converted or developed.	lent hours to be	Hrs. 35
5	Compression: If conversions to asyrdelivery multiply line 4 by .7 (seven the results on line 5. If not a conversasynchronous delivery skip line 5	tenths) and put	Hrs. 24.5
6	Multiply line 3 by line 5 if a conversion asynchronous delivery <b>OR</b> line 3 by conversion to asynchronous deliver on line 6.	line 4 if not a	\$ 113,925
	Do not use lines 7 to 12 for any	costs that are to	be shared.
7	Infrastructure Costs	3.14	\$
8	Recurring Costs		\$
9	Delivery Labor Costs		\$
10	Travel Costs		\$
11	Miscellaneous Costs	1 1000	\$
12	Add line 7 to 12		\$
13	Total Cost - Add lines 6 and 12.		\$ 113,925
14	Number of potential students		# 2000
15	Average Cost Per Student Divide li	ne 13 by line 14	\$ 57

Cost Estimate for a Single Course Over a Five Year Period

Course Name: Alternative: AMSC Combat Casualties and Humanitarian Missions Course  Course Number: A0630							
Technology Selected	Leve	l 1	Level	2	Level 3	Level 4	
WBT			Х				
CBT							
VTT	Low		4		High		
Other							
Cost Factors			Values			Source	
1. Labor hours year 1		22	78.5		+	Oddice	
2. Labor hours year 2			78.5		Course T	echnology Ma	atch Table
3. Labor hours year 3			78.5				y Factors Table
4. Labor hours year 4			78.5			<i>a,</i>	, . actore rabio
5. Labor hours year 5		2278.5		-			
6. Subtotal			3,925				
7. Average labor cost		\$ 5					
8. Total labor Cost over 5-yr. p	eriod.						
Multiply line 6 by line 7		\$ 569,625					
Additional Development/ Deli	very C	ost	By Yea	ar	-		
9. Cost year 1	-	\$0		Data to Support Cost Analysis Worksheet			
10. Cost year 2		\$0					
11. Cost year 3		\$0					
12. Cost year 4		\$0					
13. Cost year 5		\$ 0			1,000		
14. Total Additional Costs. Sum lines 9 to 13 and enter line 14	on	\$ (	)				
15. Total Course Cost. Add lines 8 and 14 and enter line 15	er on	\$ :	596,625				
<ol> <li>Average cost over 5 years.</li> <li>Divide line 15 by 5 and ente line 16.</li> </ol>	r on	\$	113,925				
17. Potential students year 1		20	000		From Col Sheet	urse Informat	ion Summary
18. Total potential students yea 5 (multiply line 17 by 5. an enter on line 18)	d	10	,000				
<ul><li>19. Average cost per student y</li><li>5. (divide line 15 by line 1 enter on line 19)</li></ul>		\$ :	57		Round up	to the neare	st whole dollar

91B Multisystem Trauma Short Course Conversion Analysis

#### 91B MULTISYSTEM TRAUMA SHORT COURSE

#### Course Purposes

To enhance the medical NCO's capabilities by presenting valuable, up-to-date information on multiple system trauma treatment and management, establish common approaches to similar issues related to trauma, and exchange state-of-the-art information and current trends within the entire spectrum of emergency medical providers.

#### Course Content Stability:

Low

As medicine changes with new ideas and technology, the material presented is the most current to date.

#### General Presentation Styles

Distributive

The course was primarily lecture format with an opportunity for questions and answers.

#### Instructional Aids

The majority of the speakers used PowerPoint slides or a 35mm slide projector to support their presentations. A significant portion of the speakers also provided the students with handouts. In addition, there was limited use of video (10%).

#### Hands-on Activities:

None

#### Degree of Instructional Interaction

There was an opportunity to ask questions following most of the presentations. Although few questions were asked, when they occurred, the exchanges were informational.

#### Relevant Instructional Value:

a lattele

This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be wisely accomplished without further researching the topic independently.

#### Recommendation

#### Convert to Web Based Training.

The instructional value of this course would benefit from delivery on a distance learning technology that allowed for one-to-many communications, and an asynchronous delivery. Since approximately 90% of the course can change on an annual basis, the best mode of delivery would be Web Based Training, although Computer Based Training could also be utilized. Currently, this course is offered every two years at an estimated cost (by the Course Administrator) of \$158,000. Even if the course had to be completely updated each year, converting to Web Based training would result in savings of over \$37,000 over the two-year period. If the course had to be updated every two years, the savings would double. Offering the course over the web would make it available to everyone in the MOS. If everyone in the MOS took the course over a five-year period, the average cost per student would be only \$20. If everyone took the course in one year, the cost would only be \$4 per student!

# DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: 91 B Multisystem Trauma S Course		Short	Course N	lumber: A0711			
Instructional goals of the copersonal framework for the AMED	urse: To ր DD vision th	provide part	ticipants an s leadership	interactive forum in odevelopment.	which to deve	lop their own	
Frequency of course offering p	or voor	14		100	IV	IN I	
3. Current length of course in hor	-	19	7 Conve	ert to DL?	Yes	No	
Number of hours to be convert		19	8. Enhar		X	X	
Number of registered students		448	O. Ellilai	ice :		^_	
Number of potential students to benefit from the course		15,224					
9. If item 8 = Yes, Specify							
Technology	Level 1	Level 2	Level 3	Level 4			
WTB		X					
CBT							
VTT	Low		High				
Other							
Labor Hours Estimation Method	d: Short _)	X Long	Synch	ronous			
Cost Data	-						
10. Total Cost Year One				\$61,845			
11. Total Cost Year Two				\$61,845			
12. Total Cost Year Three				\$61,845			
13. Total Cost Year Four				\$61,845			
14. Total Cost Year Five				\$61,845			
15. Total costs year 1 to 5 (Sur	n of lines	10 through	14)	\$309,225			
16. Average cost, years 1 to 5 (D			• ,	\$61,845			
17. Total potential students over number of potential students [item			ultiply the	15,224		ccounts for e in the MOS	
<b>18.</b> Average cost per potential (divide the value in line 15 by the	<i>student o</i> vvalue in lin	<b>ver 5 year</b> ( e 17.)	period.	\$20			
Additional Hardware/Software	Required						
Item:	Required			Cost per unit	Total		
TOM:				cost per unit	Cost		
Proposed Enhancements		Cost					
Froposed Limancements		Cost					
	<del></del>						
Total Enhancement Costs							
Total Elmancement costs							

Instructional Formats and Physical Training Requirements

Course Name: 91B Multisystem Trauma Short Course Number: A0711 Course

of Course ing this structional rmat	Format	Description	Physical Presence Required?			
100%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.				
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No			
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No			
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.				
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?			
	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?			
	Student Verbal Presentations	Students present verbal information to the larger group.	?			
	Student Procedural Presentations	Students present procedural information to the larger group.				
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.				
	Shop Activity	Hands-on technical tasks/procedures.	?			
	Lab Activity	Hands-on laboratory tasks/procedures.	?			

**Course Information Summary Sheet** 

2D graphics still

Course Name: 91B Multisystem Trauma Short Course Course Number: A0711 Length of course - number of hours of instruction: 19 Number of Registered Students: 448 Number of potential students that could benefit from this course: 15,221 (entire career field) Instructional goals of the course: To enhance the medical NCO's capabilities by presenting valuable, up-to-date information on multiple system trauma treatment and management, establish common approaches to similar issues related to trauma, and exchange state-of-the-art information and current trends within the entire spectrum of emergency medical providers. Frequency of Course Offering: Bi-annual Continuing Education Credit Offered? Yes Number: 31.4 For each item listed, check ✓ row marked "Check" if observed or documented. Administrative Requirements Check Check Self pacing Detailed student records Group training Test Security On-demand availability Multiple test forms Open entry / open exit Training / Instruction Approach Lecture / Text Learning to Mastery Live Presenters (quest speakers) Practice / drill Self study Structured Review Demonstration Feedback on performance **Exhibit** Remediation Guided Discussion Group activities/collaborative tasks Simulation (roll play, in-basket) Problem solving exercises **Testing Types** Objective knowledge tests Performance test hardware Essay Oral testing Performance test -"paper" No testing/Student course eval Performance test - hardware Graphics

2D interactive animation
3D interactive animation
Pre recorded video /films
Open Discussion
Question and answer opportunities

3D animation

**Course Technology Match Table** 

Course: 91B Multisystem Trauma Short Cours	se		Te	echnologi	ies	
Administrative Requirements	Check	CBT	WBT	VTT		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit				-		
Detailed student records						+
Test Security		\$.				
Multiple test forms						+
Fraining / Instruction Approach						
Lecture / Text	1					
Live Presenters (guest speakers)						+
Self study						
Demonstration	+					-
Exhibit						+
Guided Discussion	-					+
Simulation – knowledge based						-
Simulation - hardware						+
Problem solving exercises			,			-
Learning to Mastery	<u> </u>					_
Practice / drill				-		-
Structured Review						-
Feedback on performance				<b>-</b> ( • }	,	-
Remediation	-			1.6		-
Group activities/collaborative tasks						-
Testing Types					1	
Objective knowledge tests		<u> </u>			1	1
Essay						
Performance test –"paper" exercise				7 pf63		-
Performance test – hardware simulation	-			-		+
Performance test – hardware				fair.		-
Oral testing		2:20				_
No testing/Student course evaluation	1				-	
Graphics			1			
2D graphics still	1	I				
3D graphics still			-		1	+
2D animation			-	-		
3D animation						
2D interactive animation						
3D interactive animation				9 mm		
Pre recorded video /films	1	-				-
Communications						
Audio						T
Indirect discourse					1	-
Assigned reading						-
Open Discussion						-
Question and answer opportunities	-	10/10				

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

<b>Course Name:</b> 91B Multisystem Trauma Short Course		lumber: A					
Asynchronous Course	WEB Based Training						
Interactivity Factors	Level 1		Level 3	Level 4			
Administrative Requirements							
Self pacing		>>>>>>	>>>>>>	>>>>>			
Group training							
On-demand availability		>>>>>>	>>>>>>	>>>>>			
Open entry / open exit		>>>>>>	>>>>>>	>>>>>			
Detailed student records		>>>>>>	>>>>>>	>>>>>			
Test Security		>>>>>>	>>>>>>	>>>>>>			
Multiple test forms			>>>>>>	>>>>>			
Training / Instruction Approach							
Lecture / Text	1	>>>>>	>>>>>>	>>>>>			
Live Presenters (guest speakers)							
Self study		>>>>>	>>>>>>	>>>>>			
Demonstration			>>>>>>	>>>>>			
Exhibit	65 - 35 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -		>>>>>>	>>>>>			
Guided Discussion							
Simulation – knowledge based			>>>>>>	>>>>>>			
Simulation - hardware				///////			
Problem solving exercises			>>>>>>	*****			
Learning to Mastery		>>>>>>	>>>>>>	>>>>>			
Practice / drill							
Structured Review		>>>>>>	>>>>>	>>>>>			
				>>>>>			
Feedback on performance Remediation			>>>>>>	>>>>>			
	· t °		>>>>>>	>>>>>			
Group activities/collaborative tasks							
Testing Types		T	T				
Objective knowledge tests		>>>>>	>>>>>>	>>>>>			
Essay	En a to the		,				
Performance test –"paper" exercise	Š.	11. 11	>>>>>>	>>>>>			
Performance test – hardware simulation							
Performance test – hardware	2						
Oral testing							
No testing/Student course evaluation	1	>>>>>	>>>>>>	>>>>>			
Graphics							
2D graphics still	1	>>>>>>	>>>>>	>>>>>			
3D graphics still			>>>>>>	>>>>>			
2D animation			>>>>>	>>>>>			
3D animation	si.F			>>>>>			
2D interactive animation	1			>>>>>			
3D interactive animation		,					
Pre recorded video /films		1	>>>>>>	>>>>>			
Communications		1					
Audio		>>>>>>	>>>>>	>>>>>			
Indirect discourse							
Assigned reading		>>>>>	>>>>>>	>>>>>			
Open Discussion		1870 To as in 21s 70s					
Question and answer opportunities	*						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Technology Interactivity Factors** 

Short Course Asynchronous Course	Computer Based Training						
	Level 1	Level 2					
Interactivity Factors	Level	Level 2	Level 3	Level 4			
Administrative Requirements							
Self pacing		>>>>>>	>>>>>>	>>>>>			
Group training	2	1					
On-demand availability		>>>>>>	>>>>>>	>>>>>			
Open entry / open exit	-	>>>>>>	>>>>>>	>>>>>			
Detailed student records	\$ \$500 to a \$170 to \$1	gala- surromental transport		C. 245.30 x6 43x5 554			
Test Security			December 19 1 Hereitze Steel 19 1	t og utter fil politikere			
Multiple test forms	t dahalala		>>>>>>	>>>>>			
Fraining / Instruction Approach							
Lecture / Text	1	>>>>>	>>>>>>	>>>>>			
Live Presenters (guest speakers)							
Self study		>>>>>>	>>>>>>	>>>>>			
Demonstration	No. of Concession		>>>>>>	>>>>>			
Exhibit			>>>>>>	>>>>>			
Guided Discussion							
Simulation – knowledge based			>>>>>>	>>>>>			
Simulation - hardware							
Problem solving exercises		>>>>>>	>>>>>>	>>>>>			
Learning to Mastery		>>>>>>	>>>>>>	>>>>>			
Practice / drill		>>>>>>	>>>>>>	>>>>>			
Structured Review			>>>>>>	>>>>>			
Feedback on performance		>>>>>>	>>>>>>	>>>>>			
Remediation			>>>>>>	>>>>>			
Group activities/collaborative tasks		100					
Testing Types							
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>			
Essay							
Performance test - "paper" exercise			>>>>>>	>>>>>			
Performance test – hardware simulation				>>>>>			
Performance test – hardware				MARAKARAN M. M. J.			
Oral testing							
No testing/Student course evaluation	1	>>>>>>	>>>>>>	>>>>>			
Graphics							
2D graphics still	1	>>>>>>	>>>>>>	>>>>>			
3D graphics still			>>>>>>	>>>>>			
2D animation			>>>>>>	>>>>>			
3D animation		The San San San San San San		>>>>>			
2D interactive animation				>>>>>			
3D interactive animation							
Pre recorded video /films		1	>>>>>>	>>>>>			
Communications							
Audio		>>>>>>	>>>>>	>>>>>			
Indirect discourse							
Assigned reading		>>>>>>	>>>>>>	>>>>>			
Open Discussion			T. O				
Question and answer opportunities							

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

# **Short Worksheet: Development Time**

# Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction

Course Name: 91B Multisystem Trauma Short Course

	Media: W	eb Based	Training	Level: 2	
	Analysis	Design	Development	Implementation	Sums
Percentage of Time Spent by Task Type     by Level	0.40	0.20	0.25	0.15	-
2 Multiply line 1 by average * hours					
200			la l	turing the same	
3 Average hrs. per phase	80.00	40.00	50.00	30.00	
4 Adjustments ** for hours per phase. Use 1 for added time and for less time					
	0.30	0.50	0.80	0.30	
5 Adjusted hrs. per phase. Multiply line 3					
by line 4	24.00	20.00	40.00	9.00	1
Total Labor Hours - sum across line 5	1.				93.0

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Short Worksheet: Development Time**

Short Worksheet: Refined Estimate of Dev	/elopment	Hours P	er Hour of Instru	ction		
Course Name: 91B Multisystem Trauma Sho	ort Course	-				
	Media: C	omputer l	Based Training	Level: 2		
	Analysis	Design	Development	Implementation	Sums	
1 Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15		
2 Multiply line 1 by average * hours						
200			, .			
3 Average hrs. per phase	80.00	40.00	50.00	30.00		
4 Adjustments ** for hours per phase. Use 1 for added time and for less time						
	0.30	0.50	0.80	0.30		
5 Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00		
Total Labor Hours - sum across line 5				.2	93.0	

Total Labor Hours - sum across line 5

\* Average hours per hour of instruction

\*\* Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

	Course Cost Estimation Worksheet: Web Based Training		
	rse Name: 91B Multisystem Trauma Short Course Number: A0711		
Cour			
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	\$50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	\$4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	19
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	13.3
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	\$61,845.00
	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	·
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	61,845.00
14	Number of potential students.	#	15,221
15	Average Cost Per Student Divide line 13 by line 14	\$	4.06
111			

# **Course Cost Estimation Worksheet**

	Course Cost Estimation Worksheet: Computer Based Training		
	urse Name: 91B Multisystem Trauma Short urse Course Number: A0711		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars		50.00
3	Multiple line 1 by line 2 and put the results on line 3.		4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	·
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.		13.3
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.		61,845.00
	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	61,845.00
14	Number of potential students.		15,221
15	Average Cost Per Student Divide line 13 by line 14	\$	4.06

# Cost Estimate for a Single Course Over a Five Year Period

Course Name: 91 B Multisystem	ort Course	Course N	se Number: A0711			
Technology Selected	Level 1	Level 2	Level 3	Level 4		
WBT		X				
CBT						
VTT	Low		High	1		
Other						
Cost Factors		Values		Source	9.44	
Labor Hours Year 1		1237	30000		echnology Match Table, by Interactivity Factors Table	
2. Labor Hours Year 2		1237		Ĭ	,	
3. Labor Hours Year 3		1237				
4. Labor Hours Year 4		1237				
5. Labor Hours Year 5		1237				
6. Subtotal		6185				
7. Average Labor Cost per hour	\$50	V. 4-				
8. Total labor cost over a 5 year p Multiply line 7 by line 6.	eriod.	\$309,225				
Additional Development Costs	By Year					
9. Cost year 1		\$0		Data to Su	ipport Cost Analysis Worksheet	
10. Cost year 2		\$0				
11. Cost year 3		\$0				
12. Cost year 4		\$0				
13. Cost year 5		\$0				
<ol> <li>Total additional costs. Sum lir and enter on line 14</li> </ol>		\$0				
15. Total Course Cost. Add lines and enter on line 15.	8 and 14	\$309,225				
<ul><li>16. Average cost over 5 years. D</li><li>15 by 5 and enter on line 16.</li></ul>	ivide line	\$61,845				
17. Potential students year 1.		3044		From Coul	rse Information Summary Sheet	
18. Total potential students year 1 (multiply line 17 by 5 and enter on		15220				
<ul><li>19. Average cost per student year</li><li>(Divide line 15 by line 18 and enter</li><li>18)</li></ul>		\$20		Round up	to the nearest whole dollar.	

# 91 R/S/T Short Course (Vet) Conversion Analysis

## 91 R/S/T SHORT COURSE (VET)

#### Purpose of the Course

- R = Veterinary Technician; S = Preventive Medicine; T = Food Service Purpose:
- 91 R/T: To update geographically-isolated soldiers on new methods, guidance, technology, and information related to food inspection and animal care, and to network and share common
- 91 S: Inform students about current issues in Preventive Medicine and to share experience and knowledge.

#### Course Content Stability:

The focus is on the latest developments in the area, and therefore the topics change each year. There are some core topics in the 91 S course that are stable each year.

#### General Presentation Style:

Distributive

This course could be better described as a "conference" than a formal course. That is, the information was delivered using a lecture format as the primary vehicle in which one instructor presented information to many learners. Approximately 95% of the instruction was delivered using a basic lecture format. Approximately 2% used film/video as part of the presentation There was one demonstration/shop activity.

#### Instructional Aids:

Most of the speakers used overhead slides, 35mm slides, or PowerPoint presentation files to aid them in their instruction.

#### Hands-on Activities

None

#### Degree of Instructional Interaction:

There were opportunities for the students to ask questions. Although many of the instructor's felt that the class interaction was critical to meeting course objectives, the amount of this interaction varied from instructor to instructor. In general, these questions concerned points of clarification. and served to allow the learner to better understand how to apply the information in a real world situation. The question/answer periods were generally limited to an exchange between an individual student and the instructor; that is, the interaction did not expand into a general discussion period involving several students.

#### Relevant Instructional Value

Moderate

This course provides a significant amount of information, but with a goal of making the listeners familiar with the topic. Should the students wish to apply any of the information that was provided, it is doubtful that this could be wisely accomplished without further researching the topic independently. A primary benefit of the course appeared to be the opportunity to network and make contacts among peers.

#### Recommendation

#### Convert to Web Based Training.

This "course" is actually more of a conference insofar as there is no structured set of intended learning outcomes unified by a specific theme. The information itself could easily be presented in the form of Web Based training accompanied by an electronic journal. As such, the entire population could have access to the information, and the presenters could have an "electronic publication" to add to their vitas. In this way, the educational value of the course could be increased insofar as students could participate in interactive activities and be assessed using a distance learning technology.

## DISTANCE LEARNING CONVERSION REPORT FORM

Course Name: 91 R/S/T Short Course (Vet)			Course Number: A0717				
4 Instructional male of the							
1. Instructional goals of the		aldiore on n	ow mothod	a guidanaa taabna	logy and inform	-ti	
91 R/T: To update geographical related to food inspection and a	nimal care a	nd to netw	ork and sha	s, guidance, techno	ology, and informa	ation	
91 S: Inform students about cur	rent issues ir	Preventiv	e Medicine/	share experience a	nd knowledge		
or c. mom stadents about our	icii ioodco ii	11 TOVOTILIV	C WCGIOITIC/	share experience a	na knowledge.		
2. Frequency of course offering	per year	11			Yes	No	
Current length of course in hours		38 <sup>2</sup>	7. Conve	ert to DL?	Х	****	
<ol> <li>Number of hours to be conve</li> </ol>	Number of hours to be converted		8. Enhan	ice?		Х	
<ol><li>Number of registered studen</li></ol>	ts	80					
<ol><li>Number of potential students</li></ol>	that could	1,250			711-42		
benefit from the course	***						
9. If item 8 = Yes, Specify		*T-		1			
Technology	Level 1	Level 2	Level 3	Level 4	1446		
WBT		Х					
CBT					70.11	74144	
VTT	Low	7	High				
Other							
Labor Hours Estimation Meth	od: Short _)	Long	Synchi	ronous			
Cost Data							
10. Total Cost Year One				6400 700			
11. Total Cost Year Two				\$123,700			
12. Total Cost Year Three				\$123,700			
13. Total Cost Year Four				\$123,700			
14. Total Cost Year Five				\$123,700			
	un of lines (	10 46	1 4 4 )	\$123,700			
15. Total costs year 1 to 5 (Si	im of lines	through	1 14)	\$618,500			
16. Average cost, years 1 to 5	Divido valuo	in line 15 l	ov. 5)	\$123,700			
17. Total potential students over			• '				
number of potential students [ite	iditiply the	6,250					
18. Average cost per potential student over 5 year per				\$99			
(divide the value in line 15 by th	e value in line	e 17.)					
						C6.5	
Additional Hardware/Softwa	re Required						
Item:				Cost per unit	Total		
					Cost		
Proposed Enhancements		Cost					
. Topoda Emianoments		0031					
Total Enhancement Costs							
Total Elinancement Costs	Teach of August	1	N				

<sup>&</sup>lt;sup>1</sup> Course is offered bi-annually <sup>2</sup> Includes all breakout hours in the total

Instructional Formats and Physical Training Requirements

Course Name: 91 R/S/T Short Course (Vet)

Course Number: A0717

of Course ing this tructional rmat	Format	Description	Physical Presence Required?		
95%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.	No		
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No		
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No		
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?		
	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.	?		
5%	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.			
	Student Verbal Presentations	Students present verbal information to the larger group.	?		
(((((((((((((((((((((((((((((((((((((((	Student Procedural Presentations	Students present procedural information to the larger group.	?		
((((((((((((((((((((((((((((((((((((((	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?		
	Shop Activity	Hands-on technical tasks/procedures.	?		
	Lab Activity	Hands-on laboratory tasks/procedures.	?		

**Course Information Summary Sheet** 

Course Name: 91 R/S/T Short Course (Vet) Course Number: A0717 Length of course - number of hours of instruction: 38 Number of Registered Students: 80 Number of potential students that could benefit from this course: 1.250 Instructional goals of the course: 91 R/T: To update geographically-isolated soldiers on new methods, quidance, technology, and information related to food inspection and animal care, and to network and share common solutions. 91 S: Inform students about current issues in Preventive Medicine/share experience and knowledge. Frequency of Course Offering: Bi-Annual Continuing Education Credit Offered? No Number: N/A For each item listed, check ✓ row marked "Check" if observed or documented. Administrative Requirements Check Check Self pacing Detailed student records Group training Test Security On-demand availability Multiple test forms Open entry / open exit Training / Instruction Approach Lecture / Text 1 Learning to Mastery Live Presenters (guest speakers) Practice / drill Self study Structured Review Demonstration Feedback on performance Exhibit Remediation Guided Discussion Group activities/collaborative tasks Simulation (roll play, in-basket) Problem solving exercises **Testing Types** Objective knowledge tests Performance test hardware Essav Oral testing Performance test -"paper" No testing/Student course eval **√** Performance test - hardware Graphics 2D graphics still 3D animation 3D graphics still 2D interactive animation 2D animation 3D interactive animation Pre recorded video /films Communications Audio Open Discussion Indirect discourse Question and answer opportunities Assigned reading

**Course Technology Match Table** 

Course 91 R/S/T Short Course (Vet)			Te	chnolog	ies	
Administrative Requirements	Check	CBT	WBT	VTT		
Self pacing						
Group training						
On-demand availability						
Open entry / open exit				100		
Detailed student records				September 12 mg		
Test Security		. f £				
Multiple test forms						
Training / Instruction Approach			-			
Lecture / Text	1		1			
Live Presenters (guest speakers)	+					_
Self study						
Demonstration	1					-
Exhibit						-
Guided Discussion			1			
Simulation – knowledge based						-
Simulation - hardware			1			-
Problem solving exercises	1.	L				
Learning to Mastery						-
Practice / drill				P. B. Inc.		+
Structured Review			-			
Feedback on performance				- 10		
Remediation						
Group activities/collaborative tasks	-	_				
Testing Types						
Objective knowledge tests			T	T		
Essay						
Performance test –"paper" exercise				green realization		_
Performance test – hardware simulation						
Performance test – hardware	-					-
Oral testing		Production of the Contraction				-
No testing/Student course evaluation	1					
Graphics				1		
2D graphics still			T	1	T	T
3D graphics still					-	<u> </u>
2D animation						
3D animation						
2D interactive animation						-
3D interactive animation				100		
Pre recorded video /films	<del>                                     </del>					-
Communications			ļ .			
Audio	T		1	1	T	
Indirect discourse					-	-
Assigned reading						
Open Discussion		-				-
					ļ	
Question and answer opportunities						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

Course Name: 91 R/S/T Short Course (Vet)	Course	lumber: A	J 1 1 1	
Asynchronous Course	٧	VEB Base	ed Trainii	ng
Interactivity Factors	Level 1	Level 2	Level 3	Level 4
Administrative Requirements				
Self pacing		>>>>>	>>>>>>	>>>>>
Group training				
On-demand availability		>>>>>>	>>>>>>	>>>>>
Open entry / open exit		>>>>>>	>>>>>>	>>>>>
Detailed student records		>>>>>>	>>>>>>	>>>>>
Test Security		>>>>>>	>>>>>>	>>>>>
Multiple test forms			>>>>>>	>>>>>
Training / Instruction Approach				
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>
Live Presenters (guest speakers)				
Self study		>>>>>>	>>>>>>	>>>>>
Demonstration		1	>>>>>>	>>>>>
Exhibit	J - 11111111111111111111111111111111111	-	>>>>>>	>>>>>
Guided Discussion				
Simulation – knowledge based	F		>>>>>>	>>>>>
Simulation - hardware	15			
Problem solving exercises	₹		>>>>>>	>>>>>
Learning to Mastery		>>>>>>	>>>>>>	>>>>>
Practice / drill		>>>>>>	>>>>>>	>>>>>
Structured Review				>>>>>
Feedback on performance	· Paragraphic		>>>>>>	>>>>>
Remediation	42		>>>>>>	>>>>>
Group activities/collaborative tasks	P. Maria			
Testing Types				
Objective knowledge tests		>>>>>>	>>>>>>	>>>>>
Essay				
Performance test -"paper" exercise	A MANAGEM		>>>>>>	>>>>>
Performance test – hardware simulation				
Performance test – hardware				
Oral testing	J.			
No testing/Student course evaluation	1	>>>>>>	>>>>>>	>>>>>
Graphics	V	1		
2D graphics still		>>>>>	>>>>>	>>>>>
3D graphics still	<b>V</b>		>>>>>	>>>>>
2D animation	AND STREET, STREET,	-	>>>>>	>>>>>
3D animation	,			>>>>>
2D interactive animation	(			>>>>>
3D interactive animation				
Pre recorded video /films	. 0		>>>>>>	>>>>>>
Communications			1	
Audio	<u> </u>	>>>>>>	>>>>>	>>>>>
Indirect discourse				
		10.45 (1907)		
Assigned reading		>>>>>	>>>>>>	>>>>>
Open Discussion	Maria Vine Control			
Question and answer opportunities				

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Technology Interactivity Factors** 

Course Name: 91 R/S/T Short Course (Vet)	Course N	lumber: A	J/1/			
Asynchronous Course	Computer Based Training					
Interactivity Factors	Level 1	Level 2	Level 3	Level 4		
Administrative Requirements						
Self pacing		>>>>>>	>>>>>>	>>>>>		
Group training						
On-demand availability		>>>>>>	>>>>>>	>>>>>		
Open entry / open exit		>>>>>>	>>>>>>	>>>>>		
Detailed student records						
Test Security						
Multiple test forms			>>>>>>	>>>>>		
Training / Instruction Approach						
Lecture / Text	1	>>>>>>	>>>>>>	>>>>>		
Live Presenters (guest speakers)						
Self study		>>>>>>	>>>>>>	>>>>>		
Demonstration		1	>>>>>>	>>>>>		
Exhibit	i mamali 1		>>>>>>	>>>>>		
Guided Discussion						
Simulation – knowledge based	1 <del>0</del> % * 2 * -0		>>>>>>	>>>>>		
Simulation - hardware	( 5					
Problem solving exercises		>>>>>>	>>>>>>	>>>>>		
Learning to Mastery		>>>>>>	>>>>>	>>>>>		
Practice / drill		>>>>>	>>>>>>	>>>>>		
Structured Review			>>>>>>	>>>>>		
Feedback on performance		>>>>>>	>>>>>>	>>>>>		
Remediation			>>>>>>	>>>>>		
Group activities/collaborative tasks	S. M. Caper Andrews					
Testing Types		•				
Objective knowledge tests	I	>>>>>>	>>>>>>	>>>>>		
Essay						
Performance test "paper" exercise			>>>>>>	>>>>>		
Performance test – hardware simulation		4.5		>>>>>		
Performance test – hardware						
Oral testing	. 6					
No testing/Student course evaluation	1	>>>>>>	>>>>>>	>>>>>>		
Graphics	· ·			1		
2D graphics still	1	>>>>>	>>>>>>	>>>>>		
3D graphics still			>>>>>>	>>>>>		
2D animation	Tenthorposed .		>>>>>>	>>>>>		
3D animation				>>>>>		
2D interactive animation				>>>>>		
3D interactive animation						
Pre recorded video /films			>>>>>>	>>>>>		
Communications		1000000				
Audio	T	>>>>>>	>>>>>	>>>>>		
Indirect discourse				///////		
Assigned reading		>>>>>	*******	******		
		11111111	>>>>>>	>>>>>		
Open Discussion						

Shaded blocks indicates factors NOT supported by that level of technology.

Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

## **Short Worksheet: Development Time**

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction

Course Name: 91 R/S/T Short Course (Vet)

		Media: We	eb Based	Training	Level: 2	
		Analysis	Design	Development	Implementation	Sum
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2	Multiply line 1 by average * hours 200	:-				
		٠.			ing .	7,50
3	Average hrs. per phase	80.00	40.00	50.00	30.00	
4	Adjustments ** for hours per phase. Use 1 for added time and for less time	0.30	0.50	0.80	0.30	
5	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
	Total Labor Hours - sum across line 5					93.00

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

## **Short Worksheet: Development Time**

Short Worksheet: Refined Estimate of Development Hours Per Hour of Instruction

Course Name: 91 R/S/T Short Course (Ve
--

		Media: Co	mputer B	ased Training	Level: 2	
		Analysis	Design	Development	Implementation	Sum
1	Percentage of Time Spent by Task Type by Level	0.40	0.20	0.25	0.15	
2	Multiply line 1 by average * hours 200	,				
3	Average hrs. per phase	80.00	40.00	50.00	30.00	i
4	Adjustments ** for hours per phase. Use 1 _ for added time and for less time	0.30	0.50	0.80	0.30	
	Adjusted hrs. per phase. Multiply line 3 by line 4	24.00	20.00	40.00	9.00	
	Total Labor Hours - sum across line 5					93.00

<sup>\*</sup> Average hours per hour of instruction

<sup>\*\*</sup> Reduce or raise the average percentage per year. Numbers in line 4 reflect savings for PPSCP courses based on assumptions given.

# **Course Cost Estimation Worksheet**

: ,	Course Cost Estimation Worksheet: Web Based Training		
Cou	rse Name: 91 R/S/T Short Course (Vet) Course Number: A	0717	
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	38
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	26.6
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	123,690.00
	Do not use lines 7 to 12 for any costs that are to be shared.		
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	123,690.00
14	Number of potential students.	#	1,250
15	Average Cost Per Student Divide line 13 by line 14	\$	98.95

# **Course Cost Estimation Worksheet**

a Tagya , A	Course Cost Estimation Worksheet: Computer Based Training		
Со	urse Name: 91 R/S/T Short Course (Vet) Course Number: A 0717		
1	Write the sum from Refined Estimate Worksheet, estimated number of hrs. per hr. of instruction.	Hrs.	93
2	Average hourly labor cost in dollars	\$	50.00
3	Multiple line 1 by line 2 and put the results on line 3.	\$	4,650.00
4	Actual number of classroom equivalent hours to be converted or developed.	Hrs.	38
5	Compression: If conversion to asynchronous delivery multiply line 4 by .7 (seven tenths) and put the results on line 5. If not a conversion to asynchronous delivery skip line 5.	Hrs.	26.6
6	Multiply line 3 by line 5 if a conversion to asynchronous delivery OR line 3 by line 4 if not a conversion to asynchronous delivery. Put the results on line 6.	\$	123,690.00
i.i.	Do not use lines 7 to 12 for any costs that are to be shared.	,	P
7	Infrastructure Costs	\$	
8	Recurring Costs	\$	
9	Delivery Labor Costs	\$	
10	Travel Costs	\$	
11	Miscellaneous Costs	\$	
12	Add line 7 to 12	\$	0.00
13	Total Cost - Add lines 6 and 12.	\$	123,690.00
14	Number of potential students.	#	1,250
15	Average Cost Per Student Divide line 13 by line 14	\$	98.95
eur.			

# Cost Estimate for a Single Course Over a Five Year Period

Course Name: 91 R/S/T Short C	)	Course N	17		
Technology Selected	Level 1	Level 2	Level 3	Level 4	900
WBT		X			7.60
CBT					****
VTT	Low		High		
Other					
Cost Factors		Values		Source	
Labor Hours Year 1		2,473.8		Course Tech Table, Tech	nnology Match nology Factors Table
2. Labor Hours Year 2	****	2,473.8			
3. Labor Hours Year 3		2,473.8			
4. Labor Hours Year 4	** ***	2,473.8			
5. Labor Hours Year 5		2,473.8			
3. Subtotal	12,369				
7. Average Labor Cost per hour	\$50	-			
8. Total labor cost over a 5 year period. Multiply line 7 by line 6.		\$618,450	74.44		**************************************
Additional Development Costs	By Year				
9. Cost year 1		\$0	Data to Su Workshee	ipport Cost Ai t	nalysis
10. Cost year 2	***************************************	\$0			
11. Cost year 3		\$0			
12. Cost year 4		\$0			1 100, 40, 200
13. Cost year 5		\$0			
14. Total additional costs. Sum li and enter on line 14	nes 9 to 13	\$0			
15. Total Course Cost. Add lines and enter on line 15.	8 and 14	\$618,450			
16. Average cost over 5 years. D 15 by 5 and enter on line 16.	ivide line	\$123,690			
17. Potential students year 1.		1,250	From Coul	rse Informatio	n Summary
18. Total potential students year ' (multiply line 17 by 5 and enter on		6250	-		
<ol> <li>Average cost per student yea</li> <li>(Divide line 15 by line 18 and ente</li> <li>18)</li> </ol>		\$99	Round up	to the neares	t whole dollar.

Health Care Ethics Conversion Analysis

### m 12168

### Course Purpose:

To provide chaplains with the tools for ethical decision-making with a particular focus on medical and battle field ethics.

## Course Content Stability: High

Although the examples used during the course may change, the focus on the "case study method" remains constant.

## General Presentation Style:

### Lecture/Simulation/Open Discussion

Background information was presented using a basic lecture format. Many of the issues were then further examined using group discussion. The application of the case study method was demonstrated using a discussion format as well. High level of interactivity

#### Instructional Aids:

Lecture was supplemented with overhead slides outlining the information being presented. Handouts provided guidelines concerning the case study method and information about activities that the students would be participating in, as well as films/VCR presentations were used.

#### Hands-on Activities:

None.

### Degree of Instructional Interaction:

The students participated in several discussions, and a role play. This allowed the students to more fully explore some rather sensitive and "gray area" issues. In addition, they could demonstrate that they had integrated the information presented concerning the "case study method", and were able to work through a "real life" problem using it.

### Relevant Instructional Value:

This seminar presented professionally relevant information as well as a methodology that could be used to function more effectively on the job.

#### Recommendation:

### Do not convert to a distance learning mode

While it is possible to convert this course to Video Teletraining, the cost per student is very high. The high level of interactivity would require the course to be presented at least twice in order for a high level of interactivity to be maintained. While it is possible to separate the methodology from the application so that students could review the material, and familiarize themselves with the content before attending the course, the high level of integration in this course would require that this material be presented again in the course and in context. Given the short length of the course, and the small number of students, pre-course instruction will not provide any significant savings.

## **DISTANCE LEARNING CONVERSION REPORT FORM**

Course Name: Health Care Ethics		Co	urs	e Num	ber:	A0803			
1. Instructional goals of the cou	rse : To r	orovide ch	apla	ains wit	h the	tools for ethi	cal decis	ion-ma	akina
with a particular focus on medical and	battle field	ethics.	•						
			-						
2. Frequency of course offering p	er year:	# less						Yes	No
		than 1							
3. Current length of course in hou	rs	# 24	7.	. Cor	vert	to DL?			Х
4. Number of hours to be converted	ed	# 24	8.	. Enh	ance	?			X
5. Number of registered students		# 15		W-12-2-					
6. Number of potential students th	at								-
could benefit from the course		# 35							
RECOMMEN	ID ETHIC	cs cou	RS	E BE	LEF	T AS-IS			1
9. If item 8 = Yes, Specify									
Technology	Level 1	Level	2	Leve	1 3	Level 4			
WBT			WW.t						
CBT									
VTT	Low			High		I			
Other				1.13.1					
				1					
<b>Labor Hours Estimation Method</b>	: Short _	X_ Long	3	Sync	hron	ous			
	(	Cost Dat	а		***************************************				
10. Total Cost Year One					\$				
11. Total Cost Year Two					\$				
12. Total Cost Year Three					\$				
13. Total Cost Year Four					\$				
!4. Total Cost Year Five					\$				
15. Total costs year 1 to 5 (Sun	n of lines	10 thro	ugh	14)	\$				
16. Average cost, years 1 to 5 (div			5 by	y 5)	\$				
17. Total potential students over a									
(multiply the number of potent	ial studer	nts (item	6 at	pove)					
by 5.)					#			·····	
18. Average cost per potential s	tuaent o	ver 5 ye	ar						
period.	مدرامير مطا	in line 4	71		æ				
(divide the value in line 15 by	trie value	in line i	()		\$			····	
Additio	nal Hard	1101010	£4	ara D					
Item:	nal Hard	ware/50	ILW	are K			T-4-10	· 4	
ntem.					Cos	t per unit	Total C	ost	
Proposed Enhancement(s)	Cost								
Electronic Journal	\$								
Licotronic dournar	\$				***				
	\$								
Total Enhancement Costs									
Total Elliancement Costs	\$								
10.5 504									
, 人名英格兰·				٠.		. £50 .			

**Instructional Formats and Physical Training Requirements** 

Course Name:
Health Care Ethics
Course Number:
A0803

of Course Ising this Istructional Format	Format	Description	Physical Presence Required ?		
77%	Lecture with questions/answer opportunities	A speaker/speakers present verbal information to an audience. The audience may ask questions regarding that information.			
	Panel Discussion	A selected group (often selected for their expertise or experience in a given area) discusses an issue in front of students. Students may ask questions about the ideas being presented.	No		
	Poster Session	A group of individuals presents material in a poster format. Students may read the material being presented, and ask questions about the material.	No		
	Small Group Discussion	Small groups of students (2~5) discuss an assigned topic.	?		
12%	Group Discussion	A larger group discusses an issue – usually led by a facilitator – with heavy emphasis on student participation.			
and design the second s	Demonstration	Students observe the application of knowledge. In this case, students are not participating themselves.	?		
	Student Verbal Presentations	Students present verbal information to the larger group.	?		
200000000000000000000000000000000000000	Student Procedural Presentations	Students present procedural information to the larger group.	?		
	Field Trip	Students visit an instructionally relevant site to observe activities or meet with individuals who present information in an applied setting.	?		
	Shop Activity	Hands-on technical tasks/procedures.	?		
	Lab Activity	Hands-on laboratory tasks/procedures.	?		

## **Course Information Summary Sheet**

Course Name: Health Care Ethics					
Course Number: A0803					
Length of course - number of hours	of instruct	ion: 24			
Number of Registered Students: 15					
Number of potential students that co	uld benefit	from this course: 35			
	***************************************				
Instructional goals of the course: To with a particular focus on medical and b	oattle field e	apiains with the tools for ethical decision thics.	on-making		
Frequency of Course Offering: less t	han once a	year			
Continuing Education Credit Offered	? NO	Number: N/A			
For each item listed, check <b>√</b> rov	v marked	"Check" if observed or documer	nted.		
Administrative Requirements	Check		Check		
Self pacing		Detailed student records	311001		
Group training		Test Security			
On-demand availability		Multiple test forms	-		
Open entry / open exit					
Training / Instruction Approach					
Lecture / Text	Х	Learning to Mastery			
Live Presenters (guest speakers)		Practice / drill			
Self study		Structured Review			
Demonstration		Feedback on performance			
Exhibit		Remediation			
Guided Discussion	Х	Group activities/collaborative tasks			
Simulation (roll play, in-basket)	Х				
Problem solving exercises					
Testing Types					
Objective knowledge tests		Performance test hardware			
Essay		Oral testing			
Performance test –"paper"		No testing/Student course	Х		
Performance test – hardware					
Graphics					
2D graphics still	Х	3D animation			
3D graphics still		2D interactive animation			
2D animation		3D interactive animation			
		Pre recorded video /films	X		
Communications					
Audio		Open Discussion	X		
Indirect discourse		Question and answer	Х		
Assigned reading					

**Course Technology Match Table** 

Course Name: Health Care Ethics	Technologies						
Administrative Requirements	Check	CBT	WBT	VTT			
Self pacing							
Group training							
On-demand availability							
Open entry / open exit							
Detailed student records							
Test Security							
Multiple test forms						·	
Training / Instruction Approach							
Lecture / Text	Х						
Live Presenters (guest speakers)							
Self study							
Demonstration							
Exhibit							
Guided Discussion	X						
Simulation – knowledge based	X						
Simulation - hardware	<u> </u>						
Problem solving exercises							
Learning to Mastery	-		-			-	
Practice / drill						-	
Structured Review							
Feedback on performance		-	-		ACCUSED OF		
Remediation				132		-	
Group activities/collaborative tasks							
Testing Types				J			
Objective knowledge tests		T	T		T		
Essay						-	
Performance test –"paper" exercise				67.5			
Performance test – paper exercise  Performance test – hardware simulation				-10			
Performance test – hardware simulation							
Oral testing		F					
	- V						
No testing/Student course evaluation  Graphics	X						
2D graphics still	7 7	1	1	1		T	
3D graphics still	X						
2D animation							
	1			-			
3D animation 2D interactive animation							
3D interactive animation			-	17.8			
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		1			-	
Pre recorded video /films	X		1			<u> </u>	
Communications	1	T	Т				
Audio							
Indirect discourse							
Assigned reading							
Open Discussion	X	washing symmetry					
Question and answer opportunities	X						

If the course requires any of the factors indicated by a black box on the technology side then this technology should not be used for the course.

**Technology Interactivity Factors** 

Interactivity Factors	1 1 4 1		
	Level 1 Low	Level 2 High	
Administrative Requirements			
Self pacing			
Group training		>>>>>>	
On-demand availability	Mer T. 1980 D. Leggionnik Portsi		
Open entry / open exit			
Detailed student records			
Test Security		>>>>>>	
Multiple test forms		>>>>>>	
Training / Instruction Approach			
Lecture / Text	X	>>>>>	
Live Presenters (guest speakers)		>>>>>	
Self study			
Demonstration		>>>>>	
Exhibit		>>>>>	
Guided Discussion		Х	
Simulation – knowledge based	Х	>>>>>	
Simulation - hardware	X		
Problem solving exercises			
Learning to Mastery			
Practice / drill			
Structured Review			
Feedback on performance			
Remediation			
Group activities/collaborative tasks			
Testing Types			
Objective knowledge tests			
Essay			
Performance test –"paper" exercise			
Performance test – paper exercise  Performance test – hardware simulation			
Performance test – hardware			
Oral testing			
No testing/Student course evaluation	V	>>>>>>	
Graphics	X	7777777	
2D graphics still		>>>>>	
3D graphics still		>>>>>	
2D animation		>>>>>>	
3D animation		>>>>>>	
2D interactive animation			
3D interactive animation			
Pre recorded video /films		>>>>>	
Communications			
Audio		>>>>>>	
Indirect discourse			
Assigned reading		>>>>>>	
Open Discussion			
Question and answer opportunities		X	

Shaded blocks indicates factors NOT supported by that level of technology Right Arrows (>>) indicate that all higher levels of the technology also support that factor.

**Calculation of Synchronous Training Costs** 

Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate (\$50) \$280 Non-local Labor Cost = Number of non-local presenters ) x (length of the course in days +1) x number of times offered x average daily rate (\$400 \$12, Local Labor Cost + Number of local presenters x average hourly rate (\$50) X 2 X number of times course is offered. \$ no Total Labor Costs \$ 22	
Development Cost = (160 hrs.) x average hourly rate (\$50) \$800  Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate (\$50) \$280  Non-local Labor Cost = Number of non-local presenters ) x (length of the course in days +1) x number of times offered x average daily rate (\$400 \$12, Local Labor Cost + Number of local presenters x average hourly rate (\$50) X 2 X number of times course is offered. \$ no  Total Labor Costs \$ 22  Additional Cost (any costs not cal Total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented. \$ 3,6  Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented. \$ 100  Total dollar amount paid as honorariums \$ no (Other) \$ no Total Labor Costs \$ 22  Total Per Diem \$ 3000	
rate (\$50) \$800  Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate (\$50) \$280  Non-local Labor Cost = Number of non-local presenters ) x (length of the course in days +1) x number of times offered x average daily rate (\$400 \$12, Local Labor Cost + Number of local presenters x average hourly rate (\$50) X 2 X number of times course is offered. \$no  Total Labor Costs \$22  Additional Cost (any costs not call total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented. \$3,60  Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented. \$100  Total dollar amount paid as honorariums \$100  Total Estimated Cost: Add Total Per Diem, Airfare, Latoral Labor Costs \$220  Total Per Diem \$300	
Course Managers Studio Cost = (Total studio time + 1 hour for each day the course is offered) x number of times course is presented x average hourly rate (\$50) \$280 Non-local Labor Cost = Number of non-local presenters) x (length of the course in days +1) x number of times offered x average daily rate (\$400 \$12, Local Labor Cost + Number of local presenters x average hourly rate (\$50) X 2 X number of times course is offered. \$ no Total Labor Costs \$ 22	20
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number of times course is presented x average hourly rate (\$50) \$280  Non-local Labor Cost = Number of non-local presenters ) x (length of the course in days +1) x number of times offered x average daily rate (\$400 \$12, Local Labor Cost + Number of local presenters x average hourly rate (\$50) X 2 X number of times course is offered. \$no  Total Labor Costs \$22  Additional Cost (any costs not car  Total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented. \$3,6  Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented. \$10  Total dollar amount paid as honorariums \$no (Other) \$no  Total Estimated Cost: Add Total Per Diem, Airfare, La Total Labor Costs \$22  Total Per Diem \$3	
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Non-local Labor Cost = Number of non-local presenters ) x (length of the course in days +1) x number of times offered x average daily rate (\$400 \$12, Local Labor Cost + Number of local presenters x average hourly rate (\$50) X 2 X number of times course is offered. \$ no Total Labor Costs \$ 22  Additional Cost (any costs not cal Total Per Diem = (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented. \$ 3,6 Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented. \$ 10 Total dollar amount paid as honorariums \$ no (Other) \$ no Total Estimated Cost: Add Total Per Diem, Airfare, La Total Labor Costs \$ 22 Total Per Diem \$ 3	20
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number of times offered x average daily rate (\$400 \$12, Local Labor Cost + Number of local presenters x average hourly rate (\$50) X 2 X number of times course is offered. \$ no Total Labor Costs \$ 22  Additional Cost (any costs not cape travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented. \$ 3,60  Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented. \$ 10  Total dollar amount paid as honorariums \$ no (Other) \$ no Total Estimated Cost: Add Total Per Diem, Airfare, Late Total Labor Costs \$ 22  Total Per Diem \$ 3	
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Additional Cost (any costs not can additional Costs and Costs	no
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Total Per Diem =  (length of course in days plus one travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented.  Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented.  Total dollar amount paid as honorariums  (Other)  \$ 100  Total Estimated Cost: Add Total Per Diem, Airfare, Later Total Labor Costs  \$ 220  Total Per Diem  \$ 3.60	otured above)
(length of course in days plus one travel day x number of non-local presenters) x         (local daily per diem rate) x number of time the course will be presented.       \$ 3,6         Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented.       \$ 10         Total dollar amount paid as honorariums       \$ no         (Other)       \$ no         Total Estimated Cost: Add Total Per Diem, Airfare, La         Total Per Diem       \$ 3	
travel day x number of non-local presenters) x (local daily per diem rate) x number of time the course will be presented.  Total Airfare = (Average Round Trip Airfare x number of non-local presenters) x number of times the course will be presented.  Total dollar amount paid as honorariums  (Other)  \$ 10  Total Estimated Cost: Add Total Per Diem, Airfare, La  Total Labor Costs  \$ 22  Total Per Diem  \$ 3	
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Total Estimated Cost: Add Total Per Diem, Airfare, La Total Labor Costs \$ 22 Total Per Diem \$ 3	one
Total Labor Costs \$ 22 Total Per Diem \$ 3	ne
Total Labor Costs \$ 22  Total Per Diem \$ 3	
Total Per Diem \$ 3	abor Costs, and Additional Costs.
The state of the s	
Total Airfare \$ 1	3,630
	,000
Total paid as honorariums \$ r	none
	none
	7,430
Cost Per Student = Total course costs divided by	
potential number of students (35) \$ 78	3

## Note:

- Given the small number of presenters and their high level of experience delivering this type of
  information, preparation time should be well below the average. Therefore the time spent in
  preparation and planning by all involved should be less. The estimate used is 160 hours for
  the first year, if converted.
- Since all presenters stayed at the facility where the course was given they are all considered non-local even though only required air travel.

Cost Estimate for a Single Course Over a Five Year Period

Cost Estimate for a Single Course Over a Five Yea Course Name: Health Care Ethics Co					ourse Number: A0803				
Technology Selected	Leve	11	Level 2	:	Level	3	Level 4		
WBT				4					
CBT				-					
VTT	Love			-	112.1				
Other	Low			+	High	<b>&gt;</b>	(		
	J								
Cost Factors			Values		T		So	IIrca	
1. Labor hours year 1		1	160		Source				
2. Labor hours year 2		80		-	Course Technology Match Table Technology Interactivity Factors Table				
3. Labor hours year 3		80							
4. Labor hours year 4			80				gy mioracin	ny radiora rabic	
5. Labor hours year 5		80			-				
5. Subtotal			80	-	Covers preparation and planning time				
7. Average labor cost		\$ 50			Covers proparation and planning time				
3. Total labor Cost over 5 yr. pe	eriod.								
Multiply line 6 by line 7		\$ 2	4,000						
Additional Development/ Deliv	ery C	ost	By Year						
O. Cost year 1		\$ 19,430			Data to Support Cost Analysis Worksheet				
10. Cost year 2			\$ 16,630				apport oddt	Tharyon Worksheet	
1 Cost year 3		£ 40,000			Additional Costs include course managers studio time for year one only, non-local labor costs, per diem and air fair.				
12. Cost year 4	1. Cost year 3		\$ 16,630		labor c	ost	s, per diem	and air fair.	
3. Cost year 5		\$ 16,630 \$ 16,630							
4. Total Additional Costs .		Ψ 1	0,030						
Sum lines 9 to 13 and enter line 14	on	\$8	5,950						
5. Total Course Cost. Add lines 8 and 14 and enter on line 15		\$ 109,950							
<ol> <li>Average cost over 5 years.</li> <li>Divide line 15 by 5 and enter line 16.</li> </ol>	5 and enter on \$ 21,990		1,990						
7. Potential students year 1		35			From Course Information Summary Sheet				
<ol> <li>Total potential students year</li> <li>(multiply line 17 by 5. and enter on line 18)</li> </ol>		175	5					,	
<ol> <li>Average cost per student yr.</li> <li>(divide line 15 by line 18 enter on line 19)</li> </ol>	r student yr. 1 to 5 by line 18 and		\$ 629		Round up to the nearest whole dollar				